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ABSTRACT

A study was conducted to investigate key aspects of community college operations in California and to provide a broad assessment of college programs and services. The study investigated questions related to finance and governance; student and faculty characteristics; and the colleges' transfer, vocational, and remedial education programs using the following information sources: interviews with almost 400 respondents at 33 community colleges; a review of available data and literature; discussions with expert panelists; an opinion survey conducted among a broad cross-section of knowledgeable observers; and interviews with selected community college leaders, academic and government agency experts, and members of the Sacramento policy community. Study conclusions indicate that: (1) community colleges are unusually flexible institutions with the capacity to adapt quickly to local needs; (2) they have many effective, and some outstanding programs and for the most part a competent and dedicated professional staff; (3) they have a long tradition of commitment to educational opportunity for all students; (4) their problems include transfer programs that need improvement, weak counseling and assessment programs, programs of special assistance for underprepared minorities that could be improved, vocational programs that emphasize specific skill training at the expense of broader competencies, no common standards for remedial courses and requirements, and faculty that could be more effective; (5) obstacles that prevent community colleges from utilizing their strengths effectively lie in the governance process, state finance formulas, uncertain funding levels, wide variation in academic standards, inefficient personnel rules, weak intersegmental coordination, and inadequate evaluation data. (AYC)

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A STUDY OF CALIFORNIA'S COMMUNITY COLLEGES

Prepared for the
California Roundtable

Volume 1
SUMMARY AND CONCLUSIONS

JC 850 374

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A STUDY OF CALIFORNIA'S COMMUNITY COLLEGES

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California Roundtable

Volume 1

SUMMARY AND CONCLUSIONS

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R-108/1

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PREFACE

This is a report on the findings of a six-month study of California's community colleges sponsored by the California Roundtable, an organization of senior executives of major California corporations.

The Roundtable was aware of recent concerns expressed in many quarters that the community colleges were experiencing problems that could be diminishing their effectiveness. Particularly in light of the long-standing ties between the community colleges and California business and industry, the Roundtable sought an independent study by disinterested analysts that would examine available evidence and report objective findings on the status and overall cost-effectiveness of the colleges. The Roundtable commissioned Berman, Weiler Associates to conduct the study.

In order to insure the independence of the study, the Roundtable has carefully maintained an arms-length relationship to the research process; study findings are entirely the responsibility of Berman, Weiler Associates.

The report is contained in three volumes, under the general heading, A Study of California's Community Colleges:

Volume 1, SUMMARY AND CONCLUSIONS

Volume 2, FINDINGS

Volume 3, APPENDIX

This volume summarizes key study findings and presents overall study conclusions. Volume 2 presents the main findings; Volume 3 presents additional details and technical discussion.

ACKNOWLEDGEMENTS

This study was greatly facilitated by the cooperation of hundreds of people throughout California. Community college site interview respondents gave generously of their time and went out of their way to help expedite our work. Many other local and state personnel also rendered patient and invaluable assistance by checking data and providing published material or other information. We particularly acknowledge the help received from staff of the Analytical Studies Unit, Office of the Chancellor, and staff of the California Postsecondary Education Commission.

Field data were ably and conscientiously collected by Martin Cohen, William Marquis, Carol McKenzie, Deborah Mounts, Mary Ruggiero, Gary Schneider, Lise Spielman, Jill Tronvig, and Martha Ture.

Invaluable assistance was provided by expert panelists who met with the research staff to explore issues of importance to the study. Many of the panelists were also asked to review earlier drafts of various chapters of this report. The panelists and reviewers are listed in Volume 2, Appendix A, which also outlines the methods employed by the study. Their assistance is gratefully acknowledged; they are of course not responsible for the study's findings and conclusions.

The study was fortunate to have the advice and counsel of Lynn Whitmore, Assistant Dean of Instruction for General Education at Vista College, Berkeley. Professor Walter Garms, School of Education, University of California, Berkeley, also provided invaluable advice, as did Joel Brodsky, of J. Brodsky & Associates, Berkeley.

The manuscript was typed with great skill and speed by University Word Processing of Berkeley, and could not have been published without the tireless and accurate clerical assistance of Dale Jenssen.

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I. INTRODUCTION

California's community college system began seventy-five years ago with one college and thirty students. By 1985, almost half of all adult Californians had attended a community college, and 106 campuses enrolled nearly three-fourths of all students attending public postsecondary institutions.

The missions of the community colleges were reviewed by the legislature in 1919, 1947, 1955, and 1960. These reviews identified and endorsed the comprehensive missions pursued by the colleges today -- transfer, vocational education, remediation, and adult and community education. Among these missions, however, relative priorities have varied over time, and rapid college growth in the 1960s and 70s was achieved largely through the expansion of community and adult education, and programs for part-time students interested in obtaining or improving work skills. Following the passage of Proposition 13 in 1978, the colleges also became largely state-supported institutions for the first time. These and other changes over the last two decades have caused many observers to call for a reassessment of the role and future of the community colleges. What missions and priorities should the colleges have, and who should they serve? How should they be governed and financed? How could their educational programs be strengthened?

This report is aimed at helping to inform discussions of these issues by describing key aspects of college operations and providing a broad assessment of college programs and services. The report addresses questions of finance and governance, describes student and faculty characteristics, and reviews the colleges' transfer, vocational, and remedial education programs. Study findings are based on interviews with almost 400 respondents at 33 colleges; a

review and synthesis of available data and literature; discussions with expert panelists in five key issue areas; an opinion survey conducted among a broad cross-section of knowledgeable observers; and interviews with selected community college leaders, academic and government agency experts, and members of the Sacramento policy community.

II. GOVERNANCE

Community colleges began as extensions of high schools, and were originally governed by local elementary-secondary school boards. By the early 1970s, the colleges had broken away from the K-12 systems and were governed in separate districts by their own boards of trustees. These boards set local property tax rates and established district budgets, hired district staff, and made educational policy for their districts. In 1967, the State Board of Governors and Office of the Chancellor were created to coordinate policy for the districts and provide them with administrative support. Thus, the community colleges have traditionally been governed by locally autonomous districts, whose authority was not challenged by the system's weak state administrative agency.

Since the passage of Proposition 13 in 1978, authority has shifted from being largely local to largely shared among local trustees, the Board of Governors, and the legislature. The most obvious change has been the assumption by the legislature of authority for the allocation and distribution of resources; neither local trustees nor the Board of Governors control the amount of money that each college receives. At the same time, the Board's authority has grown considerably over the last seven years, and is increasingly exercised in areas that had been reserved to local prerogative. This has created areas of overlapping authority between the Board of Governors and local trustees, leading many study informants to conclude that improved consultation and coordination are needed. These informants felt that local-state relations could become increasingly strained if the Board moves to

increase the scope of its authority over college academic programs, whose character is now still left largely to local discretion.

Lines of accountability in this system are not clear. The legislature can hold the colleges accountable only in the broadest sense, and while local trustees are in theory accountable to their electorates, they are increasingly regulated by a state agency. The Board of Governors is in turn accountable to the legislature, but has limited ability to enforce policy at the local level (e.g., it has no authority to hire or fire local personnel). We found broad agreement among community college personnel that this system of governance does not work efficiently, but no consensus on what changes should be made.

We found, in sum, that both local trustees and the State Board of Governors lack key elements of the capacity to govern.* As a consequence, key decisions affecting the colleges are often made by the state legislature -- i.e., in the political arena. This has further weakened local autonomy, and has clouded the issue of where leadership resides.

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*This situation appears to be unique to California: Typically, states with locally elected boards also have local taxing and budget allocation authority; states with centrally funded systems tend to have local boards appointed by central authorities.

III. FINANCE AND EXPENDITURES

The community colleges are financed primarily through state apportionments, with contributions from local revenues derived from property taxes and student fees. The state determines the amount of revenue that each district is to receive, subtracts locally generated revenue from this total, and makes up the difference through the state apportionment. Since both local taxes and student fees are also set by the state, the effect is one of complete state financing.

California spends more on community colleges, relative to its wealth, than almost any other state in the nation. But while state support of community colleges has increased over the last decade, this increase has not been enough to offset fully the reduction in local revenues brought about by Proposition 13, coupled with the effects of inflation. This overall decline in state support has led to the elimination of courses that the state has no longer wanted to support, but has also caused other, more far-reaching cuts in services, including additional course reductions, staff layoffs, and elimination of some counseling and assessment programs. Table 1 shows community colleges revenues, in current and constant dollars, from 1976-77 through the Governor's budget proposal for 1985-86.

TABLE 1

CALIFORNIA COMMUNITY COLLEGES
TOTAL REVENUES[a]
(Dollars in Millions)

Year	Local Sources[b]	State Aid	Total State and Local Funding	Average Daily Attendance	Total State & Local Funding Per ADA	Total State & Local Funding Per ADA in 1976-77 Dollars[d]	Federal Aid	Other Revenue[c]	Total Revenue	Total Revenue Per ADA	Total Revenue Per ADA in 1976-77 Dollars[d]
1976-77	668.0	484.2	1,152.2	721,884	1,396	1,596	103.1	110.7	1,366.0	1,892	1,892
1977-78	778.1	524.7	1,302.8	718,303	1,813	1,686	115.7	96.7	1,515.2	2,109	1,964
1978-79	360.8	839.8	1,200.6	635,372	1,890	1,625	99.5	120.9	1,421.0	2,237	1,923
1979-80	295.4	1,027.0	1,322.4	670,623	1,972	1,545	121.8	164.6	1,608.8	2,399	1,880
1980-81	347.8	1,119.5	1,467.3	725,514	2,023	1,446	138.3	201.4	1,807.0	2,491	1,781
1981-82	416.4	1,104.3	1,520.7	750,715	2,026	1,344	116.0	228.0	1,364.7	2,484	1.648
1982-83	413.3	1,086.5	1,499.8	728,856	2,058	1,280	104.5	230.2	1,835.0	2,518	1.566
1983-84[e]	423.1	1,074.7	1,497.8	665,166[e]	2,252	1,319	102.0	230.2	1,830.0	2,751	1,611
1984-85[e]	535.7	1,119.2	1,654.9	640,690[e]	2,477	1,371	97.0	230.2	1,982.1	3,094	1,712
1985-86[f]	584.0	1,169.3	1,753.3	652,000[e]	2,583	1,353	92.0	266.2	2,111.5	3,239	1,696
Cumulative Change											
Amount	-153.2	635.1	601.1	-69,884	987	-243	-11.1	155.5	745.5	1,347	-196
Percent	-22.9	141.5	52.2	-9.7	61.8	-15.2	-10.8	140.5	54.6	71.2	-10.4

Source: Financial Transactions of School Districts, Governor's Budget (various years)

[a]Excludes funding for the Chancellor's Office
[b]Includes state property tax and mandatory student fees
[c]Includes combined state and federal grants, county income, food service revenues, fees for community service courses, non-resident tuition revenues, lottery revenues, and other miscellaneous revenues
[d]Adjusted by the GNP deflator for state and local government purchases
[e]Estimated
[f]Proposed

The community colleges are funded on the basis of student classroom attendance,* and we found considerable evidence that one impact of this funding formula has been an erosion of program quality. With income tied to attendance, the colleges have had strong incentives to emphasize popular courses that are inexpensive to offer, and to refrain from offering advanced, high-quality courses that do not attract large numbers of students. Course standards and instructional quality have also suffered as a result of an emphasis on attracting large numbers of students to enroll, regardless of their level of preparation.

Important changes in community college funding formulas have been made a number of times over the last decade. The frequency of these changes, and the (common) unavailability of information about final appropriation levels until well into the school year, have made both short and long term planning difficult, and have discouraged the development of new or innovative programs whose qualification for funding support is often uncertain.

There is substantial variation among districts in expenditures per ADA. These spending differences are not, for the most part, based on actual differences in costs and needs; they are largely driven by state funding formulas put in place in the wake of Proposition 13. This has left some districts particularly underfunded relative to their needs.

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*The funding formula allocates dollars on the basis of ADA (average daily attendance), which is defined in terms of the number of hours a student is under the immediate supervision of a certificated instructor. By contrast, student FTE (full-time equivalent), which is a basis for UC and CSU funding, is defined in terms of the number of academic credits students are enrolled for, and is not directly related to instructor supervision.

The proportion of community college expenditures allocated to instruction is slightly higher than the national average, and there is wide variation in the instructional costs of different kinds of programs. Available data also suggest that current provisions for funding capital expenditures may be insufficient to meet community college needs. An apparently heavy district reliance on General Funds for capital expenditures reduces resources available for funding educational services.

IV. THE STUDENT CONTEXT

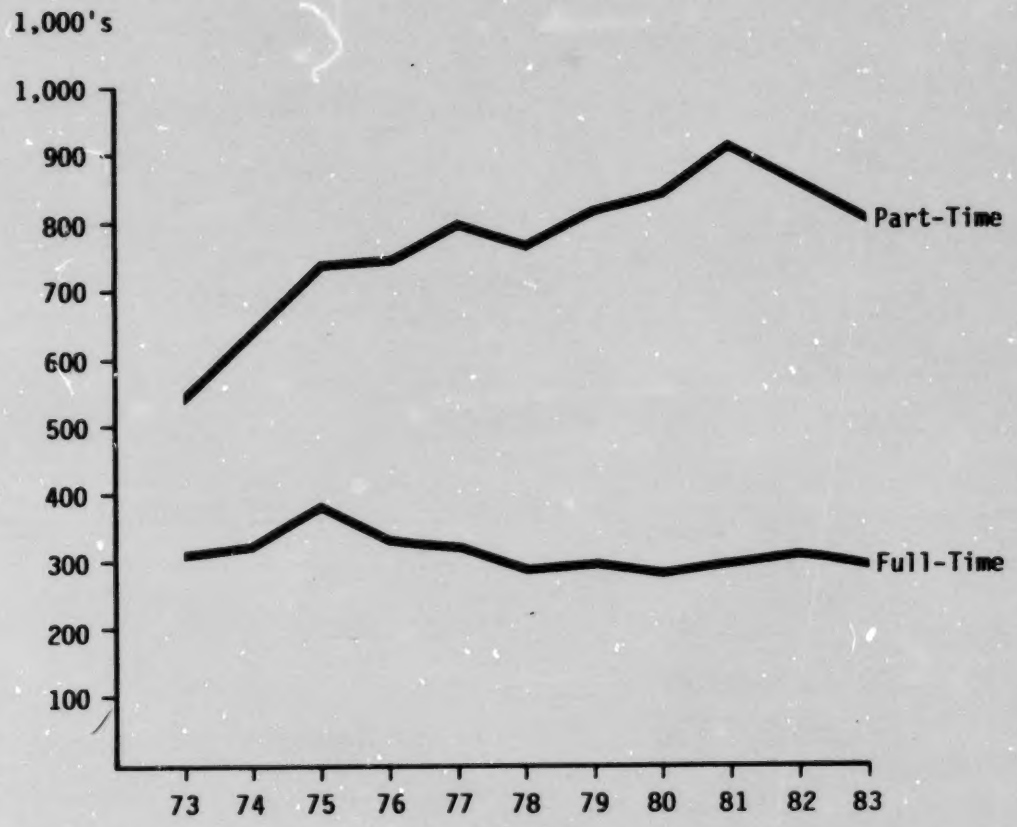
When the California Master Plan for Higher Education was written in 1960, there were nearly 300,000 students enrolled for credit in the community colleges. By 1969, credit enrollment had doubled to some 600,000, and by 1981 it had doubled again to more than 1.2 million. Since 1981, both credit and total enrollment have declined slightly.

Since 1973, non-credit (adult education) enrollment has remained fairly constant, averaging about 14 percent of all enrollment. Thus, about 86 percent of the total enrollment increase over the last decade has come from students enrolled for credit. Over this period, the number of part-time credit students increased by approximately 257,000, whereas total credit enrollment growth was about 236,000. The difference -- some 21,000 students -- is accounted for by a decline in full-time credit enrollment. In other words, almost all of the increase in community college enrollment over the last decade has been the result of an increase in the number of part-time credit students enrolled. Figure 1 illustrates these changes.

Community college students are older, on average, than their lower division counterparts at UC or CSU, but the age profile for full-time community college students is similar to that for lower division UC and CSU students. Older students (30 years of age or older) account for more than half of all students who enroll part-time in the community colleges, and the great majority of all students, regardless of age, both work and attend school.

Figure 1

COMMUNITY COLLEGE
FULL- AND PART-TIME
CREDIT ENROLLMENT
1973-74 -- 1983-84



Source: California Postsecondary Education Commission, Student Data File.

Data on the ethnic distribution of students in the three segments of California higher education is reported in comparable form only for the two years 1976 and 1982. These data show that between these two years there was a seven percent increase in minority enrollment at the community colleges, more than half of which took place among Asian students. Over the same period, the proportion of Black and Hispanic student enrollment grew more rapidly at the community colleges than at either UC or CSU. In 1982, their combined proportion of enrollment was more than twice as great at the community colleges as at UC, and more than half-again as great as at CSU. Their community college enrollment has declined sharply over the last two years.

Independent surveys conducted in 1978 and 1984 show that in both years about one-third of all students expressed interest in transferring to four year institutions, whereas the proportion of students expressing interest in vocational training grew substantially over this period, from 35.5 percent in 1978 to 50 percent in 1984. The findings of our fieldwork confirmed this significant increase in student interest in vocational education, which has been accompanied at many colleges by declining enrollments in liberal arts and/or social science courses.

Many colleges test entering students in English and mathematics; some use the tests to determine what English or mathematics courses a student is allowed to attend. Very few colleges use such tests to determine whether students will be allowed to enroll in other courses requiring English or mathematics skills.

Most colleges require only a few student contacts with counselors. For the most part, students must take the initiative in deciding that they need, and then finding, appropriate counseling assistance.

Tougher student academic standards were promulgated by the Board of Governors in 1981 and 1983, but no data exist on the overall impact of these changes.

V. THE TRANSFER MISSION

The preparation of students for transfer to four-year institutions is one of the oldest missions of the community colleges, and was particularly emphasized by the 1960 Master Plan for Higher Education. An examination of transfer rates over time shows that transfers computed as a percentage of total credit enrollment peaked in 1972-73 at 8.6 percent, and declined steadily to a 1981-82 low of 4.1 percent, a drop of more than 50 percent.

Because recent studies have shown that most transfer students have attended community colleges on a full-time basis, we also looked at transfer rates for full-time students only. Here, the difference between a 1973-74 transfer rate of 19.5 percent and the low rate of 16.6 percent in 1982-83 represented a decline of 15 percent. Finally, we computed transfer rates between 1972-73 and 1983-84 as a proportion of high school graduates who entered community colleges two years earlier. These rates were considerably higher than those computed in other ways -- averaging 46 percent -- and were fairly stable over this decade. Table 2 shows these data.*

In order to assess the meaning of these transfer rates, we looked at the level and rate of transfer ten years ago, and asked what degree of transfer activity might reasonably be expected in light of changes since then in the numbers and characteristics of community college students. We found that:

- Community college enrollment growth over the last decade has been mostly due to an increase in the number of part-time students, who transfer at only one-third the rate of full-time students (see Section IV).

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*There is substantial variation in transfer rates across community college campuses. In Fall 1983, for example, 25 colleges each transferred fewer than 10 students to UC, and 18 colleges accounted for slightly more than half of all UC transfers.

TABLE 2

RATES OF TRANSFER TO UC AND CSU

Year	Total Transfers	Transfers as % of Total Credit Enrollment	Transfers as % of Full-Time Credit Enrollment	Transfers as % of H.S. Graduates Entering CC 2 Years Previously
1969-70	48,421	8.0		
1971-71	54,411	8.3		
1971-72	59,143	8.5		
1972-73	60,985	8.6		47.1
1973-74	59,528	7.0	19.5	46.2
1974-75	58,957	6.2	18.5	48.3
1975-76	60,919	5.5	16.3	51.2
1976-77	58,353	5.4	17.7	48.8
1977-78	57,551	5.2	18.0	45.4
1978-79	53,623	5.1	18.8	44.4
1979-80	51,975	4.7	18.2	42.1
1980-81	52,077	4.6	18.5	44.3
1981-82	50,061	4.1	17.0	42.6
1982-83	50,537	4.3	16.6	43.4
1983-84	51,031	4.7	17.6	46.6

Source: California Postsecondary Education Commission Data

- Recent high school graduates at the community colleges have a high propensity to transfer, but the number of high school graduates attending community colleges declined over this period due to a decline in the total number of students graduating from high school. Figures 2 and 3 illustrate these declines.

- The number of high school graduates enrolling directly at UC or CSU has grown substantially (see Figure 4). Given the sharp decline in the total number of high school graduates over this period (Figure 2), the proportion of high school graduates going directly to UC or CSU has gone up more rapidly than has their rate of enrollment at those institutions. At the same time, the proportion of such graduates attending the community colleges has remained fairly stable. This suggests that the proportion of UC- and CSU-eligible high school graduates attending community colleges has been declining, i.e., there has been a drop in the number of community college students who are both capable of and committed to transfering to four-year institutions. Recent independent studies have reached similar conclusions.

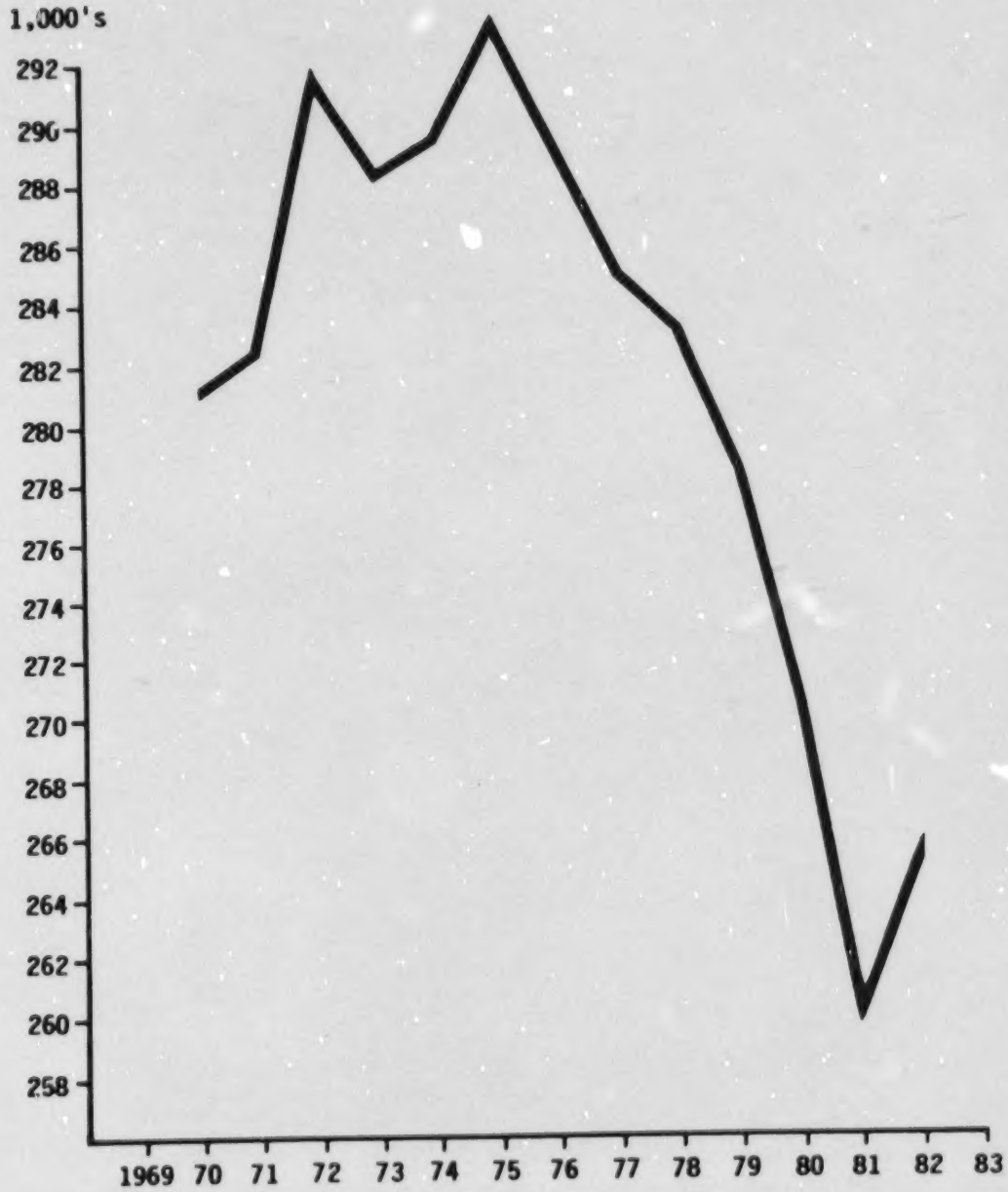
- The proportion of students expressing an interest in vocational education rose sharply between 1978 and 1984, from 35.5 percent to 50 percent. There may therefore be a somewhat smaller pool of students who are potential candidates for transfer.

In sum, we found that declines in both the number and rate of transfers over the last decade are about what might be expected, given changes over this period in the numbers and characteristics of community college students. Expectations based strictly on the historical record, however, may underestimate the potential number of students who could transfer to four-year institutions. This is particularly true for minority students.

In 1983, minorities comprised 39 percent of community college students, but only 28 percent of the transfers. The proportion of Black and Hispanic students who transferred to UC and CSU in 1982-83 was about half as great and two-thirds as great, respectively, as the proportion of white or Asian students who transferred.

Figure 2

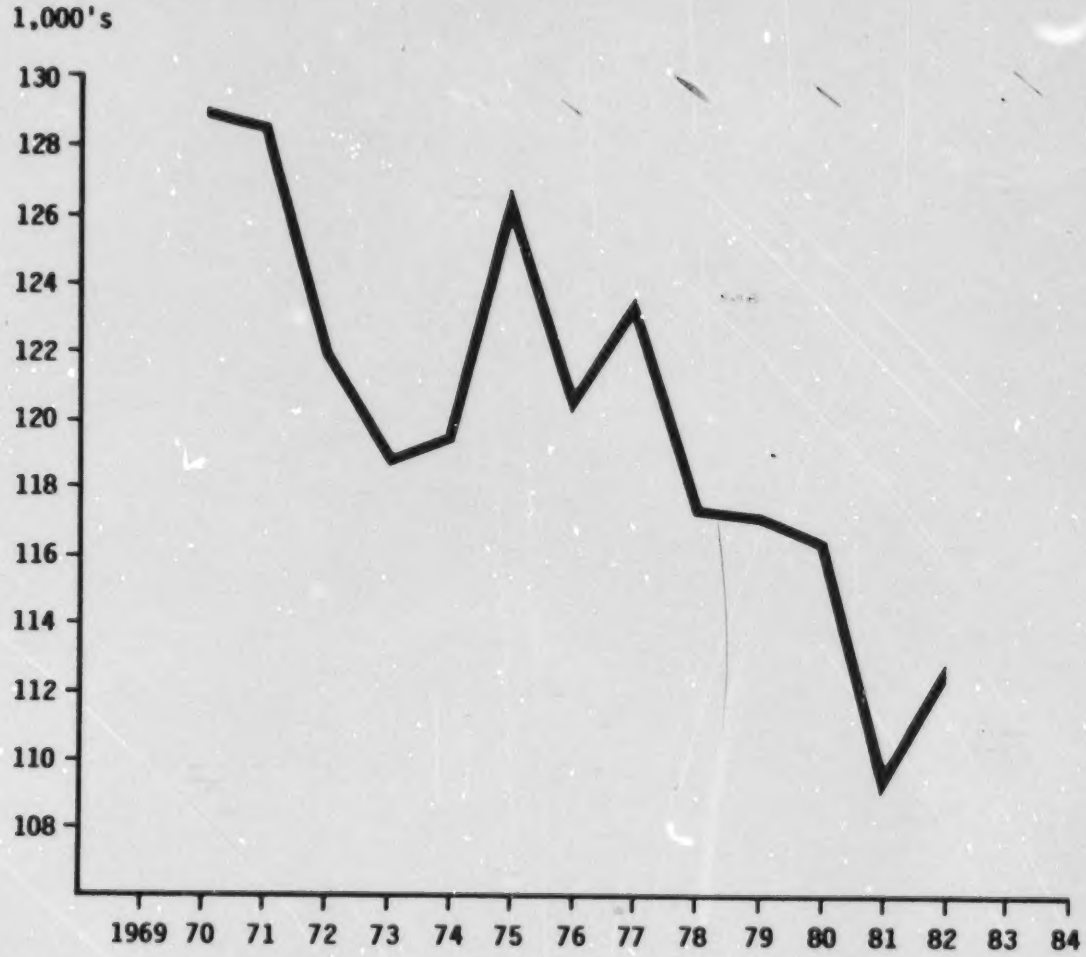
NUMBERS OF STUDENTS GRADUATING
FROM CALIFORNIA HIGH SCHOOLS
1970-1982



Source: California Postsecondary Education Commission Data

Figure 3

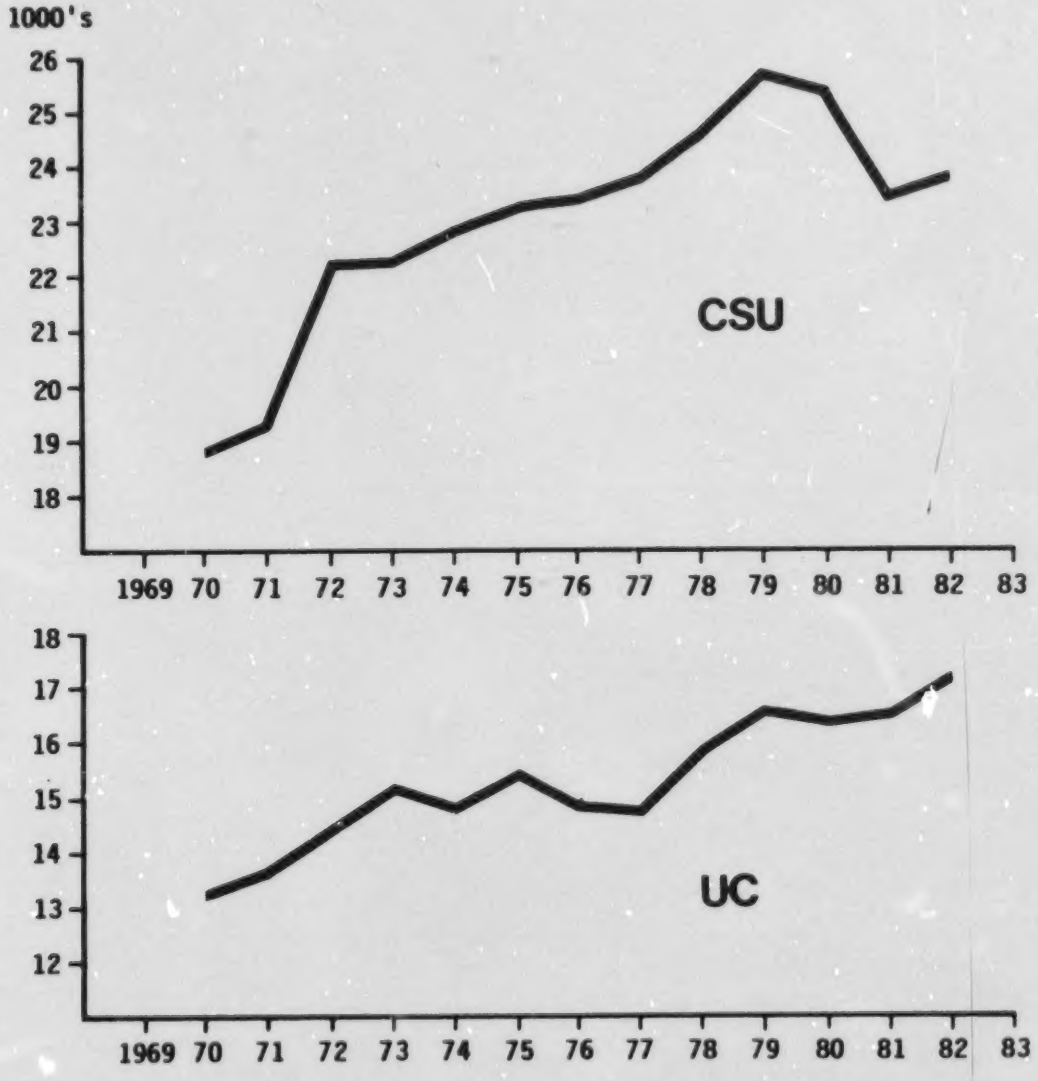
NUMBERS OF FIRST TIME
FRESHMEN FROM CALIFORNIA HIGH SCHOOLS
ATTENDING COMMUNITY COLLEGES
1970-1982



Source: California Postsecondary Education Commission Data

Figure 4

NUMBERS OF FIRST TIME
FRESHMEN FROM
CALIFORNIA HIGH SCHOOLS
ATTENDING UC AND CSU
1970-1982



Source: California Postsecondary Education Commission Data

We found that community college transfer students who had originally been eligible to attend UC or CSU directly from high school have performed about as well at those institutions as the students who did enroll there after completing their high school educations. Transfer students who had not originally been eligible to attend UC or CSU had somewhat lower achievement.

A number of problems at the community colleges currently impede improvements in transfer education:

- Programs for providing special assistance to minority students are relatively weak, despite notable efforts at some colleges.
- Counseling and assessment efforts remain under-supported.
- Course standards have often been lowered in order to maintain or increase enrollments (see Section III).
- The process of articulation and coordination with four-year campuses is often uneven.

VI. VOCATIONAL EDUCATION AND JOB TRAINING

A large publicly-supported vocational education and job training industry has been created in California, offering a wide variety of education, training, counseling, placement and related employment preparation services.* At least seventeen different programs for adults are authorized, operated, funded or administered by the state, of which only three serve the general public: community college vocational programs, adult education through the secondary schools, and apprenticeship training.

The community college programs are by far the largest source of employment preparation, with almost 500 different program titles and more than 5,200 separate programs. About half of all community college students are enrolled in vocational or job training courses. The great majority of these students are enrolled part-time to learn or upgrade job skills, rather than earn a certificate or degree; at least fifteen percent of these students already hold bachelors or advanced degrees.

Most evaluations of community college vocational education programs involve "self-study" with little independent validation; there are virtually no objective data on program effectiveness. Based on our site interviews, panel discussions, questionnaire responses, and an extensive review of available published materials, we found that:

- Most colleges have spent very little on facilities upkeep and repair over the last seven years, and much vocational program equipment is obsolete. According to one estimate it would cost 150 million dollars to bring this equipment up to date.

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*"Vocational education" generally refers to training in skills that can be useful in many work situations, whereas "job training" usually concentrates on skills that are useful only to one employer or a small group of employers.

- State credentialing rules often make it difficult for colleges to hire the best available vocational instructors. For example, a social scientist who is an expert on organizational communication may not teach a business communications class without obtaining a business instructor's credential.

- Many instructors -- particularly part-time instructors who are employed (or have recently been employed) in industry -- bring state-of-the-art knowledge to the classroom. Some instructors, however, teach for years without keeping up with their fields or improving their teaching skills.

- Approximately three-fourths of all vocational education instructors are part-time. They generally do not participate in curriculum development or test and equipment selection, and do not have office hours for students. They receive less supervision and evaluation than full-time faculty, do not have office space or clerical support, and have salaries and benefits that are lower than those of full-time instructors.

- In newer, more technical fields, good faculty are often hard to find and keep because the colleges cannot match high industry salaries.

- Reliable data on the backgrounds of senior administrators are not available; historically, they have had backgrounds in the liberal arts. Few administrators appear to have had experience in any of the occupations for which their campuses train students. The Chancellor's Office has recently been criticized by an independent study for poor management of vocational services.

In addition to vocational education, many community colleges are involved in programs that provide specific job training for local industry (e.g., through the Employment Training Panel, the Jobs Training Partnership Act, or performance-based contracts with industry). These programs compete with regular vocational programs for campus resources, and are controversial at many colleges. We found that in both job training programs and some broader vocational programs, a number of colleges had developed cooperative ventures with business and industry that were regarded by both the academic and business communities as productive and successful.

In general, despite the problems summarized above, college faculty and administration commonly viewed vocational programs as among the most effective on their campuses.

As part of our study of vocational education, we also assessed the kinds of skills and knowledge that are likely to be required of workers over the next twenty-five years.

We found that while most jobs in the future will not be in high-tech occupations, those that are will require new skills, as will the diffusion of high-tech equipment throughout the economy. The maintenance of automated manufacturing processes will require workers who are able to learn continuously in order to cope with potentially costly or dangerous unexpected failures of automatic machinery, and growing employee involvement in decision-making will increase the demand for employees who can learn new skills, work with other people, and conceive new ideas.

In short, workers in the future will need to have a high level of general competence, including the ability to learn, to solve problems, and to adapt to changing working conditions. A recent independent study found that American corporations are now spending approximately 40 billion dollars a year to educate their workers, largely in these very skills.

Much of the current effort in vocational programs focuses on specific vocational skills or training tailored to particular jobs. These programs usually do not address the competencies that will be required in the future for job security and advancement, and for the maintenance of a competitive economy.

VII. REMEDIAL EDUCATION

At the post-secondary level, remedial education refers to the process of preparing students for college-level work. Among the community colleges, widespread variation in the definition of what constitutes college level work is accompanied by equally great variation in the kinds of courses that are defined as remedial. (For example, UC and CSU have developed standardized skill requirements linked to procedures for assessing the skills of entering freshman, whereas the community colleges have no such standardized entry assessment system.) While it is therefore difficult to obtain an accurate estimate of the true scope of remedial education needs among community college students, independent analyses completed in 1981 suggest that at least 60 percent of the students who enrolled in that year for six or more units per term were not ready for college-level work in at least one academic area. There is also significant variation among colleges serving different communities. The remedial needs of some students, particularly those in large urban colleges, appear to be much greater than average.

About half of all English and mathematics classes in 1981 were classified as remedial; these and other remedial classes were estimated to account for about five percent of the statewide community college workload (though as noted above, remedial activity as a proportion of total instructional effort is likely to be much higher at some colleges). Partial data collected since 1981 indicate that remedial enrollments have been growing. While no study has been made of the reasons for this growth, the most likely factors include:

- Improved information about the skill levels of entering students, as assessment programs have expanded;
- The decline in high school standards during the 1970s and early 80s;

- A cap on the growth of K-12 adult school programs, which may have made community college programs the only available option in some communities;
- A larger proportion of under-prepared high school graduates attending community colleges (as described in Section V); and
- Growing numbers of returning adults seeking basic skills training.

College personnel interviewed in our study believe that, on the whole, their assessment procedures and remedial programs are effective in improving student academic skills. However, the lack of comparable, consistent evaluation practices makes it impossible to judge the overall effectiveness of these courses, or their effectiveness for specific kinds of students.

VIII. FACULTY

Unlike other segments of California higher education, the community colleges have traditionally employed large numbers of part-time faculty; in 1983-84, there were some 16,000 full-time and 23,000 part-time staff. According to Chancellor's Office data, full-time faculty employment has been relatively stable, whereas the employment of part-time instructors has more closely followed budget changes over the last decade. Since 1977, nine out of ten faculty laid off have been part-time; by 1983 their numbers had decreased nearly 36 percent.

Full-time faculty tend to be older than their part-time counterparts, and their average age has been increasing. More than half of them have been employed in the same district for more than 10 years. Many of our expert panelists felt that faculty burnout is a growing problem; this view tends to be supported by the data on faculty age and experience.

State data collected in 1981 show that most part-time and almost half of full-time faculty work at other jobs in addition to their primary teaching assignments. For three out of five part-time instructors, these are full-time second jobs. Six percent of the full-time faculty -- almost 1,000 instructors -- also reported holding down other full-time jobs.

Although full-time faculty in 1983-84 accounted for about 40 percent of the instructional staff, they carried almost 70 percent of the faculty workload. As noted in Section VI, most full-time but very few part-time faculty are required to have office hours for students, and part-time faculty do not ordinarily participate in campus-wide course and program development, curriculum selection, or other planning activities.

In contrast to UC and CSU, there is no statewide salary schedule for community college faculty. Their salary schedules, which vary widely from district to district, are based on the same compensation principles as those used in the elementary and secondary schools, with salary levels tied to level of education and number of years of district service.

Full-time faculty salaries in the community colleges compare favorably, on average, with those paid to faculty at CSU, and are about 20 percent below the average faculty salary at UC. Between 1975-76 and 1983-84, average full-time faculty salaries declined about 11 percent in real dollars. These average figures mask considerable variation among districts: In 1983-84, there was a 37 percent difference (about $10,500) between average salaries paid to full-time faculty in the highest and lowest-paying districts. Faculty who wish to move between districts must take these differences into account, and must negotiate their starting salaries with their new employers, who may not allow salary schedule credit for some prior years of service in other districts. Part-time faculty are paid by the hour; their wages average about 38 percent of full-time faculty salaries.

In order to teach a credit class in the community colleges, an instructor must obtain a credential in one of 76 subject areas. To teach related but different subjects a credential for each subject must be obtained, and many part- and full-time staff hold multiple credentials. California appears to be alone in requiring formal state credentials for community college instructors.

Full-time community college faculty may become tenured in two years; their job security (layoff notice, dismissal, rehiring) rights are similar to those enjoyed by faculty in the K-12 schools. According to many of our panelists and other informants, some of these rules can result in inefficient personnel practices. "Bumping" is an example that was often cited: In the event of

staff layoffs, a faculty member with little or no teaching experience in a subject area, but with a credential in that area and seniority, may replace ("bump") a less senior faculty member who has been teaching that subject competently for some time.

There is virtually no independent state support for professional development by community college faculty, and college support of these activities has generally declined over the last several years as budgets have tightened. Most faculty and administrators we intereviewed nevertheless considered professional development an essential activity that should have high priority. A wide variety of such activities still occur, but we found that they are rarely coordinated with campus long-range program planning, nor are they usually planned to take advantage of information from faculty evaluations.

We found that part-time instructors were often valued because of the current knowledge and skills they typically brought from recent work experiences. At the same time, many informants expressed concern that part-time faculty were less prepared to teach the critical thinking or abstract reasoning skills necessary for advanced level courses. On the whole, respondents estimated that from one-fourth to one-third of the full-time faculty were burned out or had other serious problems, with a like proportion judged to be well above average in subject knowledge and teaching skills. The balance of the faculty were generally assumed to be doing a competent but not outstanding job. These instructors were believed to be the prime candidates for programs of professional development aimed at improving subject competence or pedagogical skills. There are no evaluation data that could yield independent, system-wide estimates of overall staff quality.

IX. CONCLUSIONS

The findings summarized in this volume, and presented in more detail in Volumes 2 and 3, show the community colleges to be unusually flexible institutions with the capacity to adapt quickly to local needs. They have many effective -- and some outstanding -- programs, and for the most part, a competent and dedicated professional staff. And they have a long tradition of commitment to educational opportunity for all students. This tradition has been a strong source of staff motivation to improve educational programs and student services.

The findings also show that the community colleges have a number of serious problems. In particular:

- o Transfer education could be improved
- o Counseling and assessment programs are weak
- o Programs of special assistance for underprepared minorities could be strengthened
- o Vocational programs usually emphasize specific skill training at the expense of broader competencies
- o There are no common standards for remedial courses and requirements
- o Faculty could be more effective

At first, these two sets of conclusions may appear somewhat contradictory. With many competent and dedicated staff, the demonstrated ability to provide good programs, and a strong tradition of public service, why do the community colleges have serious problems? A further inspection of study findings reveals that a number of obstacles have made it difficult for

the colleges to utilize their strengths as effectively as they otherwise might:

- o The governance process suffers from serious inefficiences
- o State finance formulas have created incentives to weaken program quality
- o Financial support has declined, and allocation provisions and funding levels have been uncertain from year to year
- o Academic standards vary widely
- o Some personnel rules are inefficient
- o Statewide intersegmental coordination is weak
- o Evaluation and other data are inadequate

It is apparent from this analysis that the colleges' strengths tend to be found at the level of the individual campus or program, whereas many obstacles to improvement are systemic, and are therefore more amenable to resolution at the state level -- by the legislature, the Board of Governors, and the Chancellor.

Given the great variety and diversity of the colleges, state level policies alone are unlikely to succeed in obtaining all the improvements desired. Individual districts and colleges could take many steps to improve the quality of their programs, and some have done so. What's more, without the active support and constructive engagement of local college faculties and administrators, system-wide policies are likely to yield disappointing results. Nevertheless, many key obstacles to improvement are susceptible to state level policy intervention.

The context in which the community colleges operate has changed dramatically since the last time their missions were reviewed twenty-five years ago. The typical student now attends part-time, and often wants to

learn a skill and leave quickly for employment. This student is likely to be inadequately prepared for college-level work, and needs help in order to benefit fully from college programs. If the student is Black or Hispanic, he or she may need more academic assistance, counseling, and financial support than most other students.

Over the last decade, the community colleges have been adjusting to these changes while simultaneously making the transition from local autonomy and accountability to more complex forms of governance, and accountability to a wider public. These changes have come at a time of -- and have in part been linked to -- a squeeze on college resources. In negotiating this transition, the community colleges have received mixed signals from the California public. The colleges have been asked to impose higher student standards, but told to continue to insure maximum access for all students. They have been criticized for ignoring the transfer function, but given strong financial incentives to weaken transfer programs and associated student services. And they have been encouraged to pursue all of their traditional missions, while being told that they may be trying to do too much. Thus, many local and state policies have been made without a clear sense of the system's priorities.

The study findings suggest that, with state leadership in establishing system priorities and resolving other obstacles, and provided strong local support is forthcoming, the inherent strengths and flexibility of the community colleges should make significant improvements possible.

A STUDY OF CALIFORNIA'S COMMUNITY COLLEGES

Prepared for the
California Roundtable

Volume 2
FINDINGS

R-108/2

Berman, Weiler Associates

A STUDY OF CALIFORNIA'S COMMUNITY COLLEGES

Volume 2

FINDINGS

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PREFACE

This is a report on the findings of a six-month study of California's community colleges sponsored by the California Roundtable, an organization of senior executives of major California corporations.

The Roundtable was aware of recent concerns expressed in many quarters that the community colleges were experiencing serious problems that could be diminishing their effectiveness. Particularly in light of the long-standing ties between the community colleges and California business and industry, the Roundtable sought an independent study by disinterested analysts that would examine available evidence and report objective findings on the status and overall cost-effectiveness of the colleges. The Roundtable commissioned Berman, Weiler Associates to conduct the study.

In order to insure the independence of the study, the Roundtable has carefully maintained an arms-length relationship to the research process; study findings are entirely the responsibility of Berman, Weiler Associates.

The report is contained in three volumes, under the general heading, A Study of California's Community Colleges:

Volume 1, SUMMARY AND CONCLUSIONS

Volume 2, FINDINGS

Volume 3, APPENDIX

This volume presents broad study findings. Volume 3 presents additional details and technical discussion, and Volume 1 summarizes key study findings and presents overall study conclusions.

ACKNOWLEDGEMENTS

This study would not have been possible without the help and cooperation of hundreds of community college professionals throughout California. Site interview respondents gave generously of their time and went out of their way to facilitate our work. Dozens of other local and state personnel rendered patient and invaluable assistance by checking data, sending published material, or providing other information. We particularly acknowledge the help received from staff of the Analytical Studies Unit, Office of the Chancellor, and staff of the California Postsecondary Education Commission.

Field data were ably and conscientiously collected by Martin Cohen, William Marquis, Carol McKenzie, Deborah Mounts, Mary Ruggiero, Gary Schneider, Lise Spielman, Jill Tronvig, and Martha Ture.

Invaluable assistance was provided by expert panelists who met with the research staff to explore issues of importance to the study. Many of the panelists were also asked to review earlier drafts of various chapters of this report. The panelists and reviewers are listed in Appendix A, which also outlines the methods employed by the study. Their assistance is gratefully acknowledged; they are of course not responsible for the study's findings and analysis.

The study was fortunate to have the advice and counsel of Lynn Whitmore, Assistant Dean of Instruction at Vista College. Professor Walter Garms, School of Education, University of California, Berkeley, also provided invaluable advice, as did Joel Brodsky, of J. Brodsky & Associates, Berkeley.

The manuscript was typed with great skill and speed by University Word Processing of Berkeley, and could not have been published without the tireless and accurate clerical assistance of Dale Jenssen.

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I. COMMUNITY COLLEGES IN TRANSITION

INTRODUCTION

A debate is taking shape in California over the future of the state's 106 community colleges. What missions should the colleges have, and what clients should they serve? How much state financial support should they receive, and for what purposes? What is the most efficient formula for allocating these funds to colleges with varying needs? How effective are the colleges' educational programs -- where do they need to be strengthened, and how could that be accomplished?

A Citizens' Commission has recently been established to review the California Master Plan for Higher Education and report to a joint legislative committee; the first priority of the Commission is an assessment of the status of the community colleges. The Commission will ask questions like those posed above, and many others, as part of its charter to help the legislature formulate policies for California's public postsecondary institutions to the end of the century and beyond. Within the next two to three years, then, this phase of the debate over the community colleges' future may draw to a close, and new policies affecting the colleges may be formulated.

This report is aimed at helping to inform the current debate by describing key aspects of current community college operations, and providing a broad assessment of the effectiveness of community college programs and services. The report focuses on the following questions:

1. How are the colleges governed, and how efficient is the current governance structure?

2. How does the community college finance system work, and how does this system affect the colleges?

3. Who are the student clients of the colleges, and how have they changed over the last decade?

4. How do the colleges' most important programs function, and how effective are they in broad terms? Do enough students transfer? What is the condition of remedial education? What are the key features of the colleges' vocational programs, and what are the implications for the colleges of changes that may occur in the workplace over the next quarter-century?

5. What are the characteristcs of college faculty, and how efficient are current personnel policies?

To put these issues in perspective, the report begins by briefly describing the broader historical context of today's community college system. Like all institutions, the colleges are in part a product of their past. More than most institutions, they are still struggling with the problems that accompany institutional growth and change.

MISSIONS AND PRIORITIES

About one of every twelve adult Californians is enrolled in a community college -- more than one million students. Almost one of every two adult residents of the state has attended a community college at some time, and almost three-fourths of all students enrolled in public institutions of higher education are enrolled in community colleges. Seventy-five years ago, this system began with one college and thirty students. By almost any criterion, growth and change have been a distinguishing feature of the colleges since their inception.

In 1907, the legislature authorized high school districts to offer postsecondary courses that "approximate the studies prescribed in the first

two years of university courses." 1/ This authorization sanctioned the practice of many local school districts that were already providing college-level courses for students who could not attend a four-year institution directly from high school. When the first California junior college was established in Fresno in 1910, one of the primary justifications was that there was no college or university within 200 miles. 2/ By 1917, 16 high school districts in the state were providing college-level courses. 3/

Concerns about the missions of the junior colleges were raised by the legislature as early as 1919, when it appointed a commission to study the role of the colleges. The commission recommended that junior colleges provide instruction in civics, liberal arts, science, and technical skills -- exactly the functions most colleges were fulfilling. At the same time, the colleges were remedying the academic deficiencies of students who were not originally eligible to attend the university. 4/

Over the next two decades, the colleges continued to grow both in numbers of campuses and enrollment. One observer of the junior college movement saw California as the leader in community college development because of support from the University of California and Stanford University, the presence of only a handful of small denominational colleges in the state, and strong support for public education at all levels. He observed further that the university's entrance requirements disqualified "from half to two-thirds of all high school graduates in the state." 5/

In the aftermath of the Depression -- and increased industrialization in California -- the colleges came to be viewed as institutions not only for young students, but for the education and training of older adults. 6/ In

1947, the Legislature commissioned a study of higher education in California. The report of the study -- known as the Strayer Report -- called for the colleges to provide "equal opportunity for post-high school education to all California adults as well as youth." The Strayer Report also called for the colleges to provide occupational education, general education, college and career orientation and guidance, lower division transfer courses, adult education, and removal of academic deficiencies. 7/

The legislature commissioned a restudy of higher education in 1955; the resulting report identified community service as a function of the junior colleges. 8/ This expression of mission again validated a function that most of the 52 colleges in the state were already carrying out; in doing so, it represented the legislature's recognition of all the missions then currently embraced by the colleges. These missions were similar to those that had been adopted by other states. 9/

The 1960 Master Plan for Higher Education emphasized the role of the community colleges as a full partner in higher education in the state. The Plan recognized the traditional functions of the community colleges, while emphasizing the transfer mission: The framers of the Master Plan envisioned the University and State Colleges applying strict admission standards and redirecting a portion of their students to the junior colleges. 10/

In the early 1970s, the name of the colleges was changed from "junior" to "community". The change in name was not just symbolic. It recognized a major function of the colleges -- access to higher education for students who could not immediately attend four-year colleges and universities, or did not seek a four-year degree. The community colleges -- located in every metropolitan

area of the state -- were available to all students. Nationally, as well as in California, the colleges attracted previously underrepresented segments of the population, including minorities, women, and people who had not been successful in high school.

In sum, today's comprehensive community college missions -- transfer, vocational education, remediation, adult and community education -- are the same missions the colleges have had for decades. Since the early 1970s, however, three things have happened to change the public's perception of the colleges and introduce the issue of college missions into the current debate about the colleges' future: College priorities have changed, students have changed, and the colleges have moved from largely local arenas to statewide scrutiny.

Beginning in the 1960s, the community colleges began to expand by enlarging their programs for "non-traditional" students (e.g., adults seeking occasional avocational courses, older citizens, recent immigrants seeking language skills), and programs for students interested in maintaining or improving technical or professional skills. This mix of services -- community education, adult education, and "lifelong learning" -- found a ready clientele. And while adult education courses such as basic English or citizenship had always been tax-supported (K-12 system adult schools were well-established), avocational and lifelong learning courses were free to students only at the community colleges; in university extension classes these courses were fee-supported. With this growth, the community colleges expanded <u>within a subset</u> of their comprehensive missions -- and this redirection of their energies and resources was achieved, in part, by paying relatively less

attention to more traditional functions, e.g., transfer education. By 1985, the colleges' program emphases were more balanced; nevertheless, a public image remains, to some extent, of a system that has turned away from traditional academic roles.

Changes in program emphasis have not emerged solely from college desires to expand their services to a wider community. The colleges have changed in part because they have had no choice -- because their students have changed. As chapters IV, V, and VI make clear, college enrollment growth in the 1970s and early 1980s did not come from "traditional" students (i.e., full-time students who attend for two years and either transfer to a university or obtain a terminal degree and enter the world of work). Rather, it came from part-time students who had mixed, short-term goals. These students were not interested in degrees -- they wanted skills. Many already had college degrees, and were returning in order to upgrade their skills, or learn new skills as the basis for changing careers. Working women returned to the colleges in large numbers, and the colleges found themselves having to adjust to the needs of students who did not fit the traditional image of the college student. In consequence, the colleges have departed in many respects from the traditional image of institutions of higher education -- and this has left many observers uncomfortable.

Finally, the colleges have moved from a local stage to the state spotlight. Chapters II and III discuss the impact on the colleges of Proposition 13: Once the state assumed principal funding responsibility for the colleges, hard questions began to be asked in Sacramento about the appropriateness of the colleges' priorities and the cost-effectiveness of the

colleges' programs. These questions came at precisely the time when the shifts in mission emphasis and student characteristics described above were most pronounced. In many respects, the debate that began to be fueled in 1978 by these conditions is the debate that is still taking place.

CHANGE AND TRANSITION

The context for this study should now be somewhat clearer. The community colleges are an institution in a period of transition. Beginning as extensions of K-12 education, the colleges still bear the stamp of those origins in some respects, but have been pulling away from their past to adopt more attributes of institutions of higher education. They have moved from an emphasis on traditional missions (transfer and vocational) to an emphasis on community services, and back again. They have begun to impose traditional academic standards while trying to accomodate the needs of large numbers of non-traditional students. And they are making the transition from a locally supported and locally accountable system to one that is state supported and accountable to a broader public.

Thus, the community colleges have seen a recent period of rapid expansion, culminating in series of strong external shocks -- new students, new demands, new accountability, and new doubts about their performance. The colleges are still adjusting to these changes.

CONTENTS OF THIS REPORT

The next chapter presents study findings on the current system of community college governance. Chapter III discusses system finance and expenditures; Chapter IV provides findings on the changing student context for college programs. Chapter V presents findings on the community college transfer mission, while Chapters VI and VII discuss vocational education. Chapter VIII presents study findings on college remedial programs, and Chapter IX describes the faculty who teach at the colleges, and discusses current personnel policies. Appendix A describes the research process used in the study.

NOTES TO CHAPTER I

1/ The authorizing legislation was the Caminetti Act.

2/ Arthur M. Cohen and Florence Brawer, The American Community College. San Francisco, CA: Jossey-Bass, 1982.

3/ This early growth of junior colleges was typical of other states as well. By 1922, 37 of the 48 states had junior colleges. Total nationwide enrollment was about 20,000. (Cohen and Brawer, op. cit.)

4/ Patrick M. Callan, "Testimony to the Assembly Special Committee on the California Community Colleges." Sacramento, CA; California Postsecondary Education Commission, October 1983.

5/ J. P. Bogue, The Community College. New York, NY: McGraw-Hill, 1950, as quoted in Cohen and Brawer, op. cit.

6/ Callan, op. cit. The same changes in populations served and diversity of missions were evident in other areas of the country. A 1930 survey of 279 junior colleges found that 69 percent of instruction was in academic and vocational subjects, and the remaining 31 percent included sizeable offerings in music, home economics, and avocational courses. (W. C. Eells, The Junior College. Boston, MA: Houghton Mifflin, 1931, cited in Cohen and Brawer, op. cit.)

7/ California Legisalture, Senate Office of Research, The Neglected Branch. Sacramento, CA: 1984.

8/ Callan, op. cit.

9/ Cohen and Brawer, op. cit.

10/ Callan, op. cit.

II. GOVERNANCE

INTRODUCTION

The agencies that govern community colleges are responsible for a wide range of complex financial, educational, personnel and business decisions. Many observers are concerned that the way in which college governance is currently organized often makes it difficult for these decisions to be made wisely. How did this organization of governance come about? What are its key features, and how does it work in practice? Is it an efficient system?

A detailed analysis of the complex activities and relationships that characterize the day-to-day operations of community college governance was beyond the scope of this study. In this chapter we address the questions raised above by first placing today's system of governance in historical context. We then briefly discuss the main features of this system and their most important consequences for the community colleges. Chapter III discusses state finance policies and community college expenditures.

THE HISTORICAL CONTEXT

California community colleges began as extensions of high schools, and their governance structure reflects those beginnings. In 1907, the legislature authorized high school districts to offer college-level coursework, and in 1910, the Fresno Board of Education established the first two-year college program. In 1921 the legislature authorized the local creation of separate junior college districts, while continuing the authorization for junior college departments within elementary-secondary or

high school districts. Joint elementary-secondary-junior college districts were authorized in 1927, and over the next three decades new college districts were formed both as separate entities and as part of K-12 districts.

The 1950s brought rapid growth in the number of community college campuses, and the colleges began to separate themselves from K-12 systems. In 1960, 30 of the 57 community college districts were separate entities; by 1964, this number had grown to 56 out of 66 districts. By the early 1970s the process of separation was largely complete.

Separate community college districts were governed by locally elected boards of trustees with responsibility for the quality of their colleges' programs -- a governance model resembling that of the elementary-secondary system. The local boards set property tax rates for generating revenues to support district operations, hired the district chief administrative officer, set educational policy within the district, established the budget, and often took an active role in the daily functioning of the district.

Prior to 1967, a small unit in the State Department of Education coordinated the activities of the colleges and provided support to the State Board of Education in its administration of relevant provisions of the Education Code.

By 1967, the legislature recognized the need to provide a separate administrative identity for the community colleges, and created an independent agency devoted exclusively to their administrative support. The Stiern Act created the Board of Governors of the California Junior Colleges, and the Office of the Chancellor. 1/ The Board of Governors was to coordinate policy

for the districts and answer to the legislature for the operation of the colleges.

This governance structure -- locally autonomous districts with a weak state administrative agency -- was in place in 1978 when Proposition 13 was passed and a fundamental change in governance occurred.

By 1978, California had a long tradition of local autonomy in the governance of community colleges. Most observers felt that in a state the size of California, differences among communities required local decisionmaking for maximum responsiveness to local needs, and the colleges had always been governed by locally elected boards. The legislature had never shown an interest in delegating to any state-level agency the authority to control local budgets, to set and enforce program priorities, to impose centrally determined standards of quality in curriculum and instruction, or otherwise to hold local authorities directly accountable for the quality of their educational programs. Until 1978, and the change to state funding, the legislature had had little reason to be concerned with this arrangement. In the late 70s and early 80s however, the state suddenly found itself providing most of the funding for a billion dollar educational enterprise. With their local funding base, the community colleges had in many cases expanded their services to embrace a wide variety of programs that had not traditionally been offered by postsecondary institutions. These services, together with other college programs, became a state budget responsibility just as California entered a period of fiscal constraint brought about by the combined effects of Proposition 13 and economic recession.

Many legislators felt that limits on community college appropriations had to be imposed, and some were convinced that the colleges were offering programs that should not be supported with public funds. The legislature changed college funding formulas, imposed caps on enrollment growth, limited the amount of instruction that could be delivered by part-time faculty, and specified the elimination of certain kinds of courses, among numerous other measures. (According to one source, there have been 1650 changes since 1978 to Education Code provisions affecting the community colleges.) 2/

Local boards had lost overnight the power to determine or meet their district revenue needs, and with the shift in funding to the state level, they suddenly found themselves accountable, not just to their local electorates, but to the broader taxpaying public. The consequences of this change continue to dominate community college governance issues today.

THE CURRENT SYSTEM

The community colleges are state-funded institutions; their funding is appropriated yearly by the state legislature. 3/ By statute, the Governor appoints a fifteen-member Board of Governors, which is charged with providing overall policy direction to the community colleges, and is accountable to the legislature for college operations. 4/

The Board appoints a Chancellor of the Community Colleges who serves as its chief executive officer. The Chancellor also heads a state administrative office with a current staff of 135 and a budget of approximately $3 million.

The Education Code allows the Board of Governors to delegate any of its powers to the Chancellor's Office, and this authority is broadly utilized to

engage the Chancellor's Office staff in a wide variety of detailed administrative and research activities in support of Board functions. 5/

Members of local boards of trustees are elected by the voters of their districts. 6/ The authority of local boards includes all functions of governance and administration not in specific conflict with the Education Code. They are responsible for setting overall policy for the management and operation of their colleges and they employ chancellors/superintendents who serve as chief administrative officers for the districts and manage the districts' day-to-day operations within board guidelines. In single-college districts, the superintendent is also the college president. 7/

How does this system function in practice? We examined current statutes, reviewed policies established by the Board of Governors, and asked our panelists and other respondents to describe how educational policy and related decisions (e.g., the allocation and distribution of resources, choosing priorities and setting agendas for action, establishing and enforcing educational standards, recruiting and hiring personnel) were typically made.

We found that governance is today widely shared among local trustees, the Board of Governors, and the state legislature. As we have noted, this represents a considerable shift of authority (since 1978) away from local trustees to the state level. This shift of authority -- from largely local to largely shared governance -- has taken a number of forms. The most obvious change has been the assumption by the state legislature of authority for the allocation and distribution of resources. Neither local trustees nor the Board of Governors control the amount of money that each college receives;

both overall funding levels and formulas governing the distribution of those funds are determined by the legislature. (Local colleges can attempt to maximize their income by following policies designed to take advantage of distribution formulas -- this issue is taken up in Chapter III -- but in doing so every college competes against every other college for a share of a fixed resource, i.e., the total state appropriation. Where the distribution formula is pegged to student attendance, as it now is, some colleges, by accident of location or local demography, may be able to benefit more than others.)

Once the distribution of funds to local districts has been made, district trustees have wide discretion in setting priorities for the use of these resources and in making other decisions affecting their educational programs. Recently, however, local officials have faced new constraints on these decisions. Some of these constraints have been imposed directly by the legislature: a cap on the number of part-time faculty that may be hired; specific restrictions on funding for some courses; mandatory student fees. Other constraints have been imposed by the Board of Governors, which according to most of our informants has played an increasingly active role in setting broad educational program priorities and determining academic standards.

It is widely agreed that there has been a growing tendency for the Board of Governors to make policy in areas that are also the province of local trustees. The Board was concerned, for example, that standards for student academic progress were too low at some colleges. Rather than enunciate this concern in broad terms, or suggest general guidelines, the Board defined specific requirements for student academic progress, and made these requirements a system-wide policy. By doing so, it also created for itself

(that is, for the Chancellor's Office) a new regulatory responsibility. A number of observers have pointed out that if the Board is determined to play a role in improving the cost-effectiveness of college programs, it will increasingly have to make policy in areas directly affecting the academic programs of the colleges. Since these are areas that local trustees appear to feel most strongly should remain under local control (indeed, are among the few areas still largely left to local discretion), the current uneasy sharing of authority by the Board and local trustees may be more difficult to sustain in the future.

Table II-1 lists a number of common areas where both local trustees and the Board of Governors have significant authority. The list would appear to support the view of many respondents that overlapping areas of authority make improved mechanisms for local-state consultation desirable. Others have pointed out, however, that the extent of this need for consultation is a function of the extent to which the Board of Governors chooses to exercise its considerable rule-making and regulatory authority in areas that local trustees would like to reserve for themselves.

Some of our respondents pointed to reasons why the Board of Governors may move slowly in policy areas where local trustees are determined to maintain their authority. The Board acts as a regulatory agency for the enforcement of state law, but does not control the distribution of resources, cannot hire or fire local personnel, and cannot hold locally elected officials directly accountable. It has considerable authority, but little power. It governs, in large part, by virtue of a broad consensus that its authority is legitimate. In part, this consensus simply reflects a recognition that the Board's

TABLE II-1

SELECTED RESPONSIBILITIES OF LOCAL BOARDS OF TRUSTEES
AND THE STATE BOARD OF GOVERNORS

Local Boards of Trustees	State Board of Governors
Establish policies for and approve district educational programs	Review and approve all state-financed programs and courses of instruction
Establish academic standards for students, consistent with state policy	Establish minimum standards of student progress and performance
Establish employment and dismissal practices consistent with statutes and Board of Governors policy	Establish minimum standards for academic and administrative staff
Prepare district educational program master plans	Review and approve district academic and facilities master plans
Adopt instructional materials for the district	Establish academic standards for college courses
Determine and control district operational and capital outlay budgets	Approve construction of college facilities

Sources: California Community Colleges, Office of the Chancellor, Background: Board of Governors' Basic Agenda for 1985. Sacramento, CA: December 1984; _____, "Mandated Functions of the Board of Governors and Chancellor's Office of the California Community Colleges." Preliminary Draft. Sacramento, CA: August 1982; California Legislature, Senate Office of Research, The Neglected Branch. Sacramento, CA: January 1984; State of California, Education Code.

authority has been delegated by the legislature; in part, it depends on the Board being careful not to extend its authority too far or too fast into areas where local officials still have important prerogatives. Many respondents told us that individual districts commonly lobby the legislature for policies that will benefit them directly (but may have little or even negative consequences for other districts). They felt that this pattern reflected both the realities of the post-1978 shift in the power to govern, and the increasingly uncertain relationships between local districts and the Board of Governors and Chancellor's Office.

Lines of accountability in this system are not clear. In the largest sense, the colleges are held accountable by the legislature, which, if it is displeased with what it finds, can reduce budget allocations, change funding formulas, and otherwise influence college priorities. But the legislature is not organized to exercise this function except very broadly. The Board of Governors is formally accountable to the legislature for the quality and efficiency of the colleges' programs, but as noted above, it has limited power to hold local elected or appointed officials accountable in turn. Local trustees are in theory accountable to their electorates, but are increasingly regulated by a state agency. Under these circumstances, arrangements for accountability remain uncertain, and leadership is diffuse.

Most community college personnel we interviewed expressed considerable reservations about the efficiency of the current governance system. Slightly more than half of our respondents thought that many problems could be ameliorated if they had more local authority and autonomy. The balance were evenly divided between supporting more state-level authority and endorsing the

present division of responsibility between state and local boards. Many wanted the Board of Governors and the Chancellor's Office to exercise a largely "coordinating" role, and to formulate only broad policy guidelines. Others thought that these agencies should have more authority to speak for all the colleges, so as to more effectively represent the colleges' interests to the legislature. In short, there was no consensus on what changes should be made, but broad agreement that the current system is not working well.

A number of state and local officials believe that some of the concerns voiced by our respondents could be ameliorated by resolving ambiguities in the division of authority between the Board of Governors and local trustees, and by developing more effective mechanisms of consultation and coordination. The community colleges are taking steps in these directions. 8/ Many observers feel, however, that if the Board of Governors seeks to increase its authority over policies directly affecting the academic programs of the colleges, there may be more direct confrontations with local trustees, and an erosion of cooperation.

In sum, local governments have been weakened by the loss of taxing and budget allocation authority, and priorities that had been set locally are now being scrutinized in Sacramento. At the same time, the Board of Governors has no discretionary control over state funding formulas or disbursements, and cannot hold locally elected boards of trustees directly accountable for the quality of college programs.

This structure -- in which both central and local agencies of government lack key elements of the capacity to govern -- appears to be unique to

California. Typically, states with locally elected boards also have local taxing and budget allocation authority; states with centrally-funded systems tend to have local boards appointed by central authorities.

Because California's community colleges are governed by a system with significant weaknesses at both the state and local levels, key decisions affecting college administration and operations are often made by the legislature, i.e., in the political arena. Such decisions are most likely to be the result of the balance of forces in the legislature at any given time -- which may or may not yield results that are efficient from the perspective of system administration.

Many of our respondents complained that the system is inadequately represented to the legislature. But as one of our panelists put it, there is in a sense no "system" to represent -- and no agency with enough statewide authority to do so effectively.

If the current structure of governance for the community colleges continues unchanged, many believe that there may be some additional erosion of local autonomy. The Board of Governors, responding to legislative desires for increased system accountability, may feel compelled to assume more direction of community college affairs. In the absence of a clearer definition of the authority of local and state agencies, local-state disputes over policy or decisionmaking prerogatives could again result in key decisions being made in the political arena rather than by the community colleges themselves. No one we talked to felt that, in the long run, this could lead to anything but a further weakening of local autonomy and continuing uncertainty about where accountability and leadership reside.

SUMMARY

This Chapter has presented the following findings:

- Community college governance evolved from a tradition of strong local autonomy, which was reduced significantly by the change to state funding following the passage of Proposition 13.
- Authority has shifted from being largely local to largely shared among local trustees, the Board of Governors, and the legislature.
- The Board of Governors' authority has grown considerably over the last seven years, and is increasingly exercised in areas that had been reserved to local prerogative.
- Overlapping areas of authority between state and local agencies suggest the need for more effective mechanisms of consultation and coordination.
- If the State Board seeks to increase the scope of its authority over local academic programs, conflicts with local trustees may make it more difficult to sustain cooperative local-state relationships.
- There is uncertainty about where accountability and leadership in the system reside.
- There is broad agreement among community college personnel that the governance system is not working efficiently, but no consensus on what changes should be made.
- Both local and state agencies lack key elements of the capacity to govern; this situation appears to be unique to California.
- With significant weaknesses in both local and state governance, key decisions affecting the colleges are often made in the political

arena. This has further weakened local autonomy and clouded the issue of where leadership resides.

NOTES TO CHAPTER II

1/ The name was changed to community colleges a few years later.

2/ California Community Colleges, Board of Governors, Background: Board of Governors' Basic Agenda for 1985. Sacramento, CA: 1984.

3/ Technically, a combination of state and local funds, but locally-derived revenues are treated as part of the state budget allocation (see Chapter III).

4/ Thirteen of the fifteen members are selected from the general population; the remaining two members are a community college student and a faculty member. The citizen members of the Board are appointed to four-year staggered terms and are subject to confirmation by a two-thirds vote of the state Senate. Neither the student nor the faculty member is subject to Senate confirmation. The faculty member is selected by the Governor from a list of three candidates proposed by the Academic Senate of the Community Colleges, and serves a two-year term. The student member serves a one-year term.

5/ Chancellor's Office staff are civil service, not community college system employees. In addition to the Executive Office, there are six major divisions in the Chancellor's Office:

1. Affirmative Action -- provides guidelines and helps districts implement policies.

2. Analytical Studies -- compiles and analyzes data on community college operations and performs special studies as requested by the Chancellor.

3. Legal Office -- provides legal counsel to the Board of Governors, the staff, and districts as requested.

4. Legislation and Communications -- monitors proposed state and federal legislation and represents the Board of Governors in preparing and presenting testimony before Legislative committees.

5. Administration and Finance -- responsibility for budget and accounting, credentials, facilities planning, fiscal services, and personnel and support services.

6. Assistant Chancellor for Programs -- responsible for program evaluation and approval, student services and specially funded programs, vocational education and employment training.

6/ There are 52 single-college districts and 18 districts with at least two colleges. The largest districts are Los Angeles, with nine colleges, and Peralta (Oakland), with five. Most multi-college districts have two to

three campuses. Trustees are elected to four-year staggered terms. The Education Code requires that each board have at least one non-voting student member who serves a one-year term. Boards have five to seven members, depending on the district.

7/ Our fieldwork revealed considerable variation in the involvement of local boards in the operation of their districts. Some boards delegated a great deal of authority to the district chancellor and college presidents, while others maintained much more detailed oversight of district administrators.

8/ The Board of Governors has created a Commission on Local and State Board Relationships which is trying to resolve problems arising from state-local disagreements over which level has principal policy authority in various areas.

III. FINANCE AND EXPENDITURES

INTRODUCTION

Is the nearly 1.4 billion dollars spent on community colleges too much, about right, or not enough? Some perspective on this issue can be gained by comparing the current costs of the community colleges to those that have been incurred in the past, and to costs in other states; we can also ask broadly how these funds are spent by the colleges. This chapter summarizes our findings in these areas. It asks:

- How has California's funding for community colleges changed over time, and how does it compare with that of other states?
- Given California's economic capacity, how much effort does the state make to support community colleges, relative to the efforts made by other states?
- How are community college dollars spent?

Questions have also been raised about the manner in which the colleges are financed, and particularly about the impact of current state funding formulas. While a thorough analysis of the financing question was beyond the scope of this study, we have examined key elements of this issue, and the chapter also presents these findings.

FINANCING

Community colleges in California are financed primarily through local revenues and state apportionments. Local revenues are derived from local property taxes and student fees. In apportioning state funds, the state determines the amount of revenue that each district is allowed to receive per

student "ADA" (average daily attendance). This figure is multiplied by each district's total student ADA to calculate that district's total revenue. 1/ Locally generated revenue is subtracted from this total, and the balance is the state apportionment. In other words, the state makes up the difference between local revenue and the total revenue each district is to receive. Districts may not, as in many other states, unilaterally increase their revenue per student by increasing local taxes or student fees. Both are set by the state, and thus the effect is one of complete state financing.

Although the amount of revenue per ADA each district receives is determined by the state, there is substantial variation among districts in the actual rate at which they are funded. In 1982-83, the state average expenditure per ADA was $2,276. 2/ Half of the state's community college districts fell within 10 percent of this average; 21 districts were above the 10 percent band and 14 were below it. 3/

These disparities have their roots in the history of community college finance in California. Prior to the passage of Proposition 13 in 1978, community college districts received most of their revenue from local property taxes. As a result of different local choices with respect to the rate of taxation, and local differences in property values, revenues and expenditures per ADA varied widely.

These differences were "frozen" by the passage of Proposition 13, which created a need for additional state funding ("bailout"), provided initially (in 1978-79) through block grants and allocated to districts according to their prior year revenues and without regard to enrollment, thereby continuing existing revenue disparities. 4/

Note that allocations were based upon prior year revenues rather than prior year expenditures. Some districts, which had over the years accumulated reserves, had reduced their prior year revenues, but maintained or increased expenditures by drawing from their reserve funds. Since the bailout funding these districts received was based on these reduced revenue levels, and since reserves were not sufficient to continue to make up the difference between reduced revenue and current expenditures in subsequent years, expenditures were also forced to drop.

In 1979, the legislature passed AB 8, which attempted to equalize ADA funding rates by varying the rate of inflation allowance provided to districts.

Meanwhile, districts had been receiving revenue on the basis of average cost per ADA. 5/ However, the marginal cost of providing instruction for each additional student was less than the average cost in most cases. Districts therefore had strong incentives to increase enrollment, in order to receive additional state funding in excess of their marginal costs.

In response to this, a provision of AB 8 provided funding for annual ADA growth at the rate of two-thirds of the average revenue per ADA. Districts experiencing a decline in enrollment had their revenue reduced by the same two-thirds rate.

AB 8 expired in 1981, and was replaced by legislation that restricted ADA growth eligible for state funding to 2.5 percent of each district's prior year's ADA.

Growth limitation became more severe in 1982-83, when no additional funding was provided for growth or inflation. In addition, the Chancellor's

Office was required to identify $30 million worth of recreational and avocational classes for which state support would be eliminated.

In 1984, the legislature passed AB 1xx, which required the colleges to charge students $50 per semester for six units or more and $5 per unit for less than six units. (Students in financial need are exempt from the fee.) The act appropriated $15 million annually through 1986-87 and $7.5 million in 1987-88 (AB 1xx terminates on January 1, 1988) for student financial aid and reimbursements to districts for foregone revenue resulting from fee exemptions. 6/

OVERALL FUNDING LEVELS

Total community college revenue in California in 1979-80 was nearly $1.4 billion, which was two-and-a-half times the revenue of New York, the second largest system. California's community college revenue was $1,188 per student, which ranked 39th among states. 7/ Expenditures per student enrolled, however, do not accurately portray actual college workload (instructional and support services), since a student who takes many classes creates a greater college workload than a student who takes only a few. 8/ Most states measure workload according to full-time equivalent (FTE) students. Unfortunately, community college FTE enrollment data by state -- and thus expenditures per ADA or FTE -- are not available (ADA and FTE are roughly similar measures. ADA is defined in terms of student time spent under direct teacher supervision; FTE is defined in terms of the number of units a student is enrolled for, and is not directly related to instructor supervision).

An alternative measure of the relative effort states made in funding community colleges is state expenditure as a percentage of average state personal income. This is displayed in Table III-1, which shows that in 1979-80 California was tied for second among states with Wyoming and Oregon.

Though as noted above there are no published data that compare workload adjusted (ADA or FTE) community college expenditures among states over time, Table III-2 shows total and per-ADA community college revenues, in current and constant dollars, over the ten-year period from 1976-77 through the Governor's proposed budget for 1985-86.

It can be seen from Table III-2 that since 1976-77, total state and local funding has risen 52.2 percent, and funding per ADA has risen 61.8 percent. When the effects of inflation are accounted for, however, total state and local funding per ADA has decreased 15.2 percent. Thus, while state support of community colleges has increased since 1976-77, it has not been enough to fully offset the reduction in local revenues brought about by Proposition 13, coupled with the effects of inflation.

The community colleges have also not fared particularly well when compared with the other major education segments. Table III-3 shows total revenues per ADA and FTE, adjusted for inflation, for California public (K-12) schools, community colleges, and the California State University (CSU) from 1976-77 through 1985-86. During this period, inflation-adjusted community college revenues per ADA declined 10.4 percent while K-12 revenues per ADA rose 8.6 percent. CSU revenues per FTE, which are considerably higher than revenues per ADA for either the K-12 schools or community colleges, declined by 9.9 percent during this period.

TABLE III-1

REVENUE FOR PUBLIC TWO-YEAR COLLEGES AS A PERCENTAGE OF PERSONAL INCOME, BY STATE 1979-80

State	Total Revenue	Personal Income (billions)	Revenue as a % of Personal Income
Alaska	$ 33,532,000	$ 5.2	0.64%
CALIFORNIA	1,387,952,000	259.6	0.53
Wyoming	27,570,000	4.2	0.53
Oregon	130,780,000	24.7	0.53
Arizona	122,859,000	24.1	0.51
Washington	208,798,000	42.3	0.49
Wisconsin	206,139,000	44.2	0.47
North Carolina	193,109,000	45.6	0.42
Iowa	110,083,000	27.2	0.40
North Dakota	21,411,000	5.7	0.38
Florida	318,600,000	90.9	0.35
South Carolina	76,804,000	22.8	0.34
Maryland	138,853,000	43.9	0.32
Michigan	289,589,000	91.4	0.32
Texas	425,137,000	136.6	0.31
Hawaii	29,468,000	9.9	0.30
New York	543,649,000	180.7	0.30
Utah	33,901,000	11.3	0.30
Nebraska	41,086,000	14.4	0.29
Illinois	338,303,000	119.7	0.28
Kansas	66,798,000	23.5	0.28
Alabama	68,973,000	29.1	0.24
Colorado	70,316,000	29.2	0.24
Idaho	18,338,000	7.6	0.24
Virginia	119,039,000	50.2	0.24
Delaware	13,667,000	6.0	0.23
Rhode Island	19,701,000	8.7	0.23
New Mexico	22,920,000	10.3	0.22
Oklahoma	62,181,000	27.9	0.22
New Jersey	154,886,000	81.0	0.19
Ohio	191,324,000	101.8	0.19
Maine	15,578,000	8.6	0.18
Missouri	79,835,000	42.9	0.17
Tennessee	59,984,000	35.2	0.17
Minnesota	62,029,000	39.6	0.16
Pennsylvania	183,469,000	111.5	0.16
Georgia	66,913,000	44.2	0.15
Massachusetts	82,414,000	57.9	0.14
Nevada	11,837,000	8.7	0.14
Arkansas	22,038,000	16.5	0.13

TABLE III-1 (cont'd.)

State	Total Revenue	Personal Income (billions)	Revenue as a % of Personal Income
Connecticut	$46,078,000	$35.9	0.13%
New Hampshire	10,098,000	8.3	0.12
Vermont	4.760,000	4.0	0.12
West Virginia	13,516,000	15.0	0.09
Indiana	33,086,000	48.8	0.07
Kentucky	19,440,000	28.0	0.07
Louisiana	23,936,000	36.0	0.07
Montana	4,389,000	6.6	0.07
South Dakota	NA	NA	NA

Source: National Center for Education Statistics, Financial Statistics of Colleges and Universities. Washington, D.C.: 1981.

Notes: South Dakota, with one public two-year college, did not report data.

1979-80 is the most recent year for which these comparative data are available for public two-year colleges.

TABLE III-2

CALIFORNIA COMMUNITY COLLEGES
TOTAL REVENUES[a]
(Dollars in Millions)

Year	Local Sources[b]	State Aid	Total State and Local Funding	Average Daily Attendance	Total State & Local Funding Per ADA	Total State & Local Funding Per ADA in 1976-77 Dollars[d]	Federal Aid	Other Revenue[c]	Total Revenue	Total Revenue Per ADA	Total Revenue Per ADA in 1976-77 Dollars[d]
1976-77	668.0	484.2	1,152.2	721,884	1,596	1,596	103.1	110.7	1,366.0	1,892	1,892
1977-78	778.1	524.7	1,302.8	718,303	1,813	1,686	113.7	96.7	1,515.2	2,109	1,964
1978-79	360.8	839.8	1,200.6	635,372	1,890	1,625	99.5	120.9	1,421.0	2,237	1,923
1979-80	295.4	1,027.0	1,322.4	670,623	1,972	1,545	121.8	164.6	1,608.8	2,399	1,880
1980-81	347.8	1,119.5	1,467.3	725,514	2,023	1,446	138.3	201.4	1,807.0	2,491	1,781
1981-82	416.4	1,104.3	1,520.7	750,715	2,026	1,344	116.0	228.0	1,864.7	2,484	1,648
1982-83	413.3	1,086.5	1,499.8	728,856	2,058	1,280	104.5	230.2	1,835.0	2,518	1,566
1983-84[e]	423.1	1,074.7	1,497.8	665,166[e]	2,252	1,319	102.0	230.2	1,830.0	2,751	1,611
1984-85[e]	535.7	1,119.2	1,654.9	640,690[e]	2,477	1,371	97.0	230.2	1,982.1	3,094	1,712
1985-86[f]	584.0	1,169.3	1,753.3	652,000[e]	2,583	1,353	92.0	266.2	2,111.5	3,239	1,696
Cumulative Change											
Amount	-153.2	685.1	601.1	-69,884	987	-243	-11.1	155.5	745.5	1,347	-196
Percent	-22.9	141.5	52.2	-9.7	61.8	-15.2	-10.8	140.5	54.6	71.2	-10.4

[a]Excludes funding for the Chancellor's Office
[b]Includes state property tax and mandatory student fees
[c]Includes combined state and federal grants, county income, food service revenues, fees for community service courses, non-resident tuition revenues, lottery revenues, and other miscellaneous revenues
[d]Adjusted by the GNP deflator for state and local government purchases
[e]Estimated
[f]Proposed

Source: State of California, Office of the Governor, Governor's Budget. Sacramento, CA: 1976-1985.

TABLE III-3

COMPARISON OF K-12, CSU AND COMMUNITY COLLEGE REVENUES
Total Dollars per ADA and Constant Dollars per ADA
1976-77 - 1985-86

	K-12 Revenues Per ADA		CSU Revenues Per FTE		Community College Revenues Per ADA	
Year	Total Revenues[a]	1976-77 Dollars[b]	Total Revenues[a]	1976-77 Dollars[b]	Total Revenues[a]	1976-77 Dollars[b]
1976-77	$1,834	$1,834	$3,903	$3,903	$1,892	$1,892
1977-78	2,045	1,904	4,256	3,953	2,109	1,964
1978-79	2,207	1,897	4,072	3,500	2,237	1,923
1979-80	2,611	2,046	4,732	3,708	2,399	1,880
1980-81	2,875	2,056	5,236	3,744	2,491	1,781
1981-82	2,934	1,946	5,256	3,486	2,484	1,648
1982-83	2,953	1,837	5,209	3,240	2,518	1,566
1983-84*	3,292	1,928	5,261	3,081	2,751	1,611
1984-85*	3,596	1,990	6,085	3,367	3,094	1,712
1985-86**	3,807	1,991	6,727	3,518	3,239	1,696
Cumulative Change						
Amount	$1,973	$157	$2,824	$-385	$1,347	$-196
Percent	107.6%	8.6%	72.4%	-9.9%	71.2%	-10.4%

*Estimate
**Budgeted

[a]Includes property tax, state aid, federal aid, lottery revenues, combined state/federal grants, county income, student fees, and other miscellaneous revenues.

[b]Adjusted by the GNP deflator for state and local government purchases.

Source: California State Controller, Financial Transactions of School Districts. Sacramento, CA: 1978-79 - 1985-86.

IMPACT OF STATE FINANCE AND FUNDING POLICIES

The state policies described above have had a number of consequences for the community colleges:

ADA-BASED FUNDING FORMULA

We found considerable evidence that the ADA-based funding formula has created incentives that weaken the quality of community college programs.

With income tied to attendance, the colleges have had strong incentives to emphasize popular courses that are inexpensive to offer, and to refrain from offering advanced, high-quality courses that do not attract large numbers of students. Course standards and instructional quality have also suffered as a result of the emphasis on attracting large numbers of students to enroll regardless of their level of preparation. Wide variations in student ability in a class -- and large classes -- greatly complicate instruction and often penalize the well-prepared students who are willing to do advanced work. There has also been little incentive to spend scarce resources on student services (e.g., counseling -- see Chapters IV and V), equipment (see Chapter VI), or maintenance, as opposed to the development of popular classes that can attract additional enrollment.

This impact of ADA-based funding is widespread: For virtually all the colleges in our fieldwork sample, budget and student enrollment considerations were the primary factors taken into consideration when decisions were made about which programs and courses to emphasize.

INSTABILITY OF STATE FUNDING POLICIES

Since 1973, the Legislature has passed ten major bills affecting the funding of community colleges in California. These bills have dealt with both the provisions for allocating funds and the level of funding.

Our fieldwork confirmed a high level of frustration at the college and district levels due to these uncertainties in state financing; these findings were corroborated by our panelists and questionnaire respondents. The frequency of funding formula changes, and the unavailability of information about final appropriation levels until well into the school year, have made long term planning difficult and have discouraged the development of new or innovative programs (that might not qualify for funding support).

DECLINE IN STATE SUPPORT

Table III-2 shows a pattern of declining state and local support for community colleges (in constant dollars per ADA) over the last decade. In large part, this decline has been the result of state policies designed to achieve two objectives: The elimination of some courses considered to have low priority for state funding, and the establishment of limits on the state's financial obligation. Some decline in overall support should therefore not be surprising.

We found the effects of this decline to vary widely, with no discernable overall pattern. One or more of the following effects was found at virtually every campus in our fieldwork sample:

- o A reduction in the number of courses offered, beyond those courses designated by the state as low priority;
- o Staff layoffs, falling most heavily on part-time faculty;

- o Curtailment of student services such as assessment and counseling, or inability to develop desired new services (see also Chapter V);
- o Failure to replace aging equipment (see Chapter VI);
- o Deferral of plant maintenance;
- o Competition for resources among campus programs, accompanied by an erosion of cooperative campus-wide planning;
- o Intensified efforts to maintain and improve enrollment in order to qualify for ADA support, focused on popular, low-cost courses (discussed above).

INTER-DISTRICT SPENDING DIFFERENCES

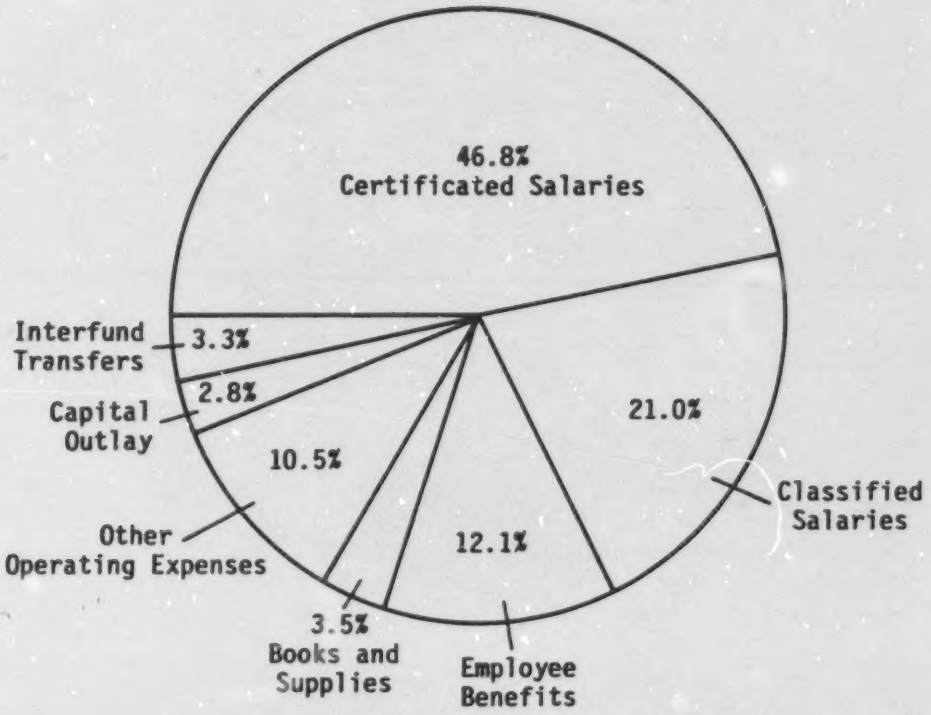
As discussed above, only half of the state's community college districts fall within ten percent of average district expenditures. One would normally expect some differences in district spending per ADA, due to variations in district costs. Current spending differences, however, are not for the most part based on actual differences in costs and needs, but (largely) on the historical accident of what districts were receiving in local revenue just prior to Proposition 13. This has left some districts particularly underfunded relative to their needs.

HOW FUNDS ARE SPENT

Figures III-1 and III-2 show the distribution of community college General Fund expenditures by object category and program category, respectively, in 1982-83. These figures reflect the fact that education is a labor-intensive industry, as salaries and benefits of classified and certificated personnel account for nearly 80 percent of all district General Fund expenditures.

Figure III-1

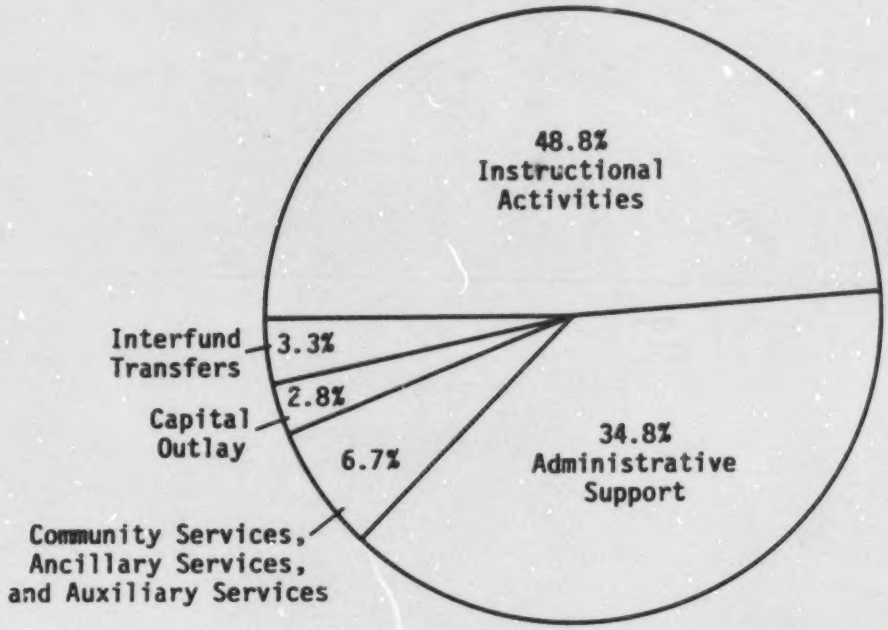
GENERAL FUND EXPENDITURES
BY OBJECT CATEGORY,
1982-83



Source: California Community Colleges, Board of Governors, California Community College Fiscal Data Abstract, 1982-83. Sacramento, CA: 1983.

Figure III-2

GENERAL FUND EXPENDITURES
BY PROGRAM CATEGORY,
1982-83



Source: California Community Colleges, Board of Governors, California Community College Fiscal Data Abstract, 1982-83. Sacramento, CA: 1983.

Instructional activities account for about one half of all expenditures. The proportion of total expenditures accounted for by each of the object and program categories has remained steady since 1980-81, which is the first year for which data are available in this form. 9/

Data from the National Center for Education Statistics show that California ranks seventeenth among states in the proportion of expenditures allocated to instruction. 10/ Thus, while the overall magnitude of California's commitment to community college education is greater than that of almost all other states (see Table III-1), the translation of that commitment to actual instruction is about average.

State data show that expenditures by instructional program in 1982-83 ranged from $702 to $2,445 per ADA, with an average expenditure for all programs of $1,151 per ADA. Of 23 programs surveyed, only 7 fall within 10 percent of this average; 6 are below and 10 are above. Moreover, instructional expenditures per ADA are more than 20 percent below average for 4 programs and more than 20 percent above average for 8 programs. 11/

SUMMARY

This chapter has presented the following findings:

- California spends more on community colleges, relative to its wealth, than almost any other state in the nation.
- While state support of community colleges has increased over the last decade, this increase has not been enough to fully offset the reduction in local revenues brought about by Proposition 13, coupled with the effects of inflation.
- State support for community colleges has declined over the last ten years relative to support for K-12 education. It has also declined slightly relative to support for CSU.
- The community colleges are funded on the basis of student class attendance. This funding formula creates incentives that have resulted in distortions in course and program planning, and a lowering of course quality.
- The instability of state finance decisions has made fiscal and program planning difficult.
- The overall decline in state support has led to the elimination of many courses that the state has no longer wanted to support, but has also caused other, more far-reaching reductions in services.
- State allocation formulas in the wake of Proposition 13 have helped to perpetuate inter-district spending differences that are not based on actual differences in costs per student.
- Compared to other states, the proportion of community college expenditures allocated to instruction in California is about average.

- There is wide variation in the costs of different instructional programs.

NOTES TO CHAPTER III

1/ One ADA is defined as 525 student contact hours; a contact hour is defined as one student under the immediate supervision and control of a certificated instructor for one hour. Thus, one full-time student attending classes for a full semester generates one ADA. The number of student contact hours (and hence ADA) to be funded at each college is estimated from a census, taken twice each semester (usually the 4th and 12th weeks), of the number of students enrolled and attending classes.

2/ Calculated by dividing total statewide expenditures by total statewide ADA. These figures exclude West Kern District, which has local oil revenues and receives no state support.

3/ California Community Colleges, Board of Governors, California Community Colleges Fiscal Data Abstract, 1982-83. Sacramento, CA: 1983.

4/ The disparities in revenue per ADA are based upon total revenue, including categorical aid. Because categorical aid is based upon some measure of district need, and not upon ADA, one would expect some variation in any case in revenue allocated per ADA.

5/ "Average cost" was deemed to be the actual average expenditure per ADA, and was not based upon a prior estimate of "true" cost.

6/ Before the passage of AB 1xx and the imposition of a mandatory uniform student fee, colleges charged students a wide variety of user fees, which produced income that was not subtracted from total district entitlements in determining state apportionments. AB 1xx suspended these user fees. Colleges whose income from such fees in 1983-84 was greater than the increase in their state apportionments between 1983-84 and 1984-85 suffered a net cut in revenue (in 1984-85) under this rule; the AB 1xx district reimbursement provisions are aimed at easing the impact of these cuts. In 1983-84, districts earned a total of approximately $20 million in user fees. Though the new student fee is expected to generate some $40 million more than this in 1984-85, the entire $68 million is deducted from total district entitlements. For the most part, districts remain obligated to provide the services for which the fees had been charged.

7/ National Center for Education Statistics, Financial Statistics of Colleges and Universities. Washington, D.C.: 1981. Comparative data for 1979-80 is the most recent available for public two-year colleges.

8/ Note, however, that workload is not directly proportional to course enrollment. Every enrolled student makes some demand on college facilities, student services (e.g., health, counseling), and recordkeeping and administration.

9/ The amount shown for administrative support in Figure III-2 includes money expended for instructional support, instructional services, admissions and records, counseling and guidance, other student services, maintenance and operation of plant, planning and policymaking, and general institutional services.

10/ National Center for Education Statistics, Financial Statistics of Colleges and Universities. Washington, D.C.: U.S. Government Printing Office, 1983.

11/ California Community Colleges, Board of Governors, California Community Colleges Fiscal Data Abstract. Sacramento, CA: 1980-81 - 1982-83.

IV. THE STUDENT CONTEXT

INTRODUCTION

Chapters V - VII of this report present study findings on community college transfer and vocational programs. To help put these findings in greater perspective, this chapter first describes the student clients for these programs. What kinds of students attend community colleges? What changes have taken place over the last decade or more in numbers of students attending, and in student characteristics, attendance patterns, and goals? This chapter takes up these questions.

STUDENT ENROLLMENT

When the California Master Plan for Higher Education was written in 1960, there were nearly 300,000 students enrolled for credit in the community colleges. In the 1960's, and through most of the 1970s, the colleges made major efforts to expand their services and bring in new students. 1/ Credit enrollment doubled to some 600,000 in 1969, and doubled again to more than 1.2 million students in 1981. Table IV-1 shows these figures.

Both total and credit enrollment have declined since 1981. 2/ This decline has been variously attributed to the decline in the number of high school graduates; an improved state economy (meaning more people employed and fewer in school); reductions in the number of courses offered, due to state budget cuts; 3/ the imposition (in 1984-85) of a new general student fee; and

TABLE IV-1

COMMUNITY COLLEGE ENROLLMENT
1960-61 - 1983-84

Year	Credit Enrollment	Total Enrollment
1960-61	289,898	
1961-62	305,201	
1962-63	336,201	
1963-64	368,008	
1964-65	411,338	
1965-66	459,400	
1966-67	487,458	
1967-68	521,695	
1968-69	568,147	
1969-70	602,917	
1970-71	651,997	
1971-72	694,790	
1972-73	710,893	
1973-74	851,311	1,009,307
1974-75	958,530	1,136,478
1975-76	1,101,548	1,284,824
1976-77	1,074,658	1,255,678
1977-78	1,115,874	1,321,739
1978-79	1,046,128	1,159,819
1979-80	1,095,932	1,248,459
1980-81	1,129,522	1,348,068
1981-82	1,211,845	1,430,711
1982-83	1,164,195	1,354,949
1983-84	1,087,425	1,240,532

Source: Data from California Community Colleges, Office of the Chancellor, Analytical Studies Unit.

the introduction of tougher screening procedures and academic standards. The relative importance of each of these influences cannot be known without more careful study.

Where have all the new students come from? Table IV-2 shows that over the decade from 1973-74 to 1983-84, the proportion of total enrollment accounted for by non-credit (adult education) students remained fairly constant, averaging about 14 percent. 4/ Thus, more than four-fifths of the increase in enrollment has come from students who enroll for college credit. Table IV-3 shows that over this ten-year period, the proportion of credit students enrolled full-time declined sharply, with corresponding increases in the proportion of part-time credit enrollment. These changes are illustrated in Figure IV-1. Tables IV-1 and IV-3 show that between 1973-74 and 1983-84 the number of part-time credit students increased by 256,830, whereas total credit enrollment growth between those two years was 236,114. The difference -- 20,716 students -- was accounted for by the decline in full-time enrollment. In other words, almost all of the increase in community college enrollment over the last decade has been the result of an increase in the number of part-time credit students enrolled.

STUDENT CHARACTERISTICS

Compared to students enrolled at the University of California or the California State University, community college students tend to be older, more ethnically diverse, more likely to be female, more likely to be enrolled part-time, and more likely to come from families whose income is below the state median. 5/

TABLE IV-2
TOTAL AND NON-CREDIT ENROLLMENT
1973-74 - 1983-84

Year	Total Enrollment	Non-Credit Enrollment	Non-Credit Enrollment as % of Total Enrollment
1973-74	1,009,307	157,996	16%
1974-75	1,136,478	177,948	16
1975-76	1,284,824	183,276	14
1976-77	1,255,678	181,020	14
1977-78	1,321,739	205,865	16
1978-79	1,159,819	113,691	10
1979-80	1,248,459	152,527	12
1980-81	1,348,068	218,546	16
1981-82	1,430,711	218,866	15
1982-83	1,354,949	190,754	14
1983-84	1,240,532	153,107	12

Source: Data from California Community Colleges, Office of the Chancellor, Analytical Studies Unit.

TABLE IV-3

FULL- AND PART-TIME CREDIT ENROLLMENT

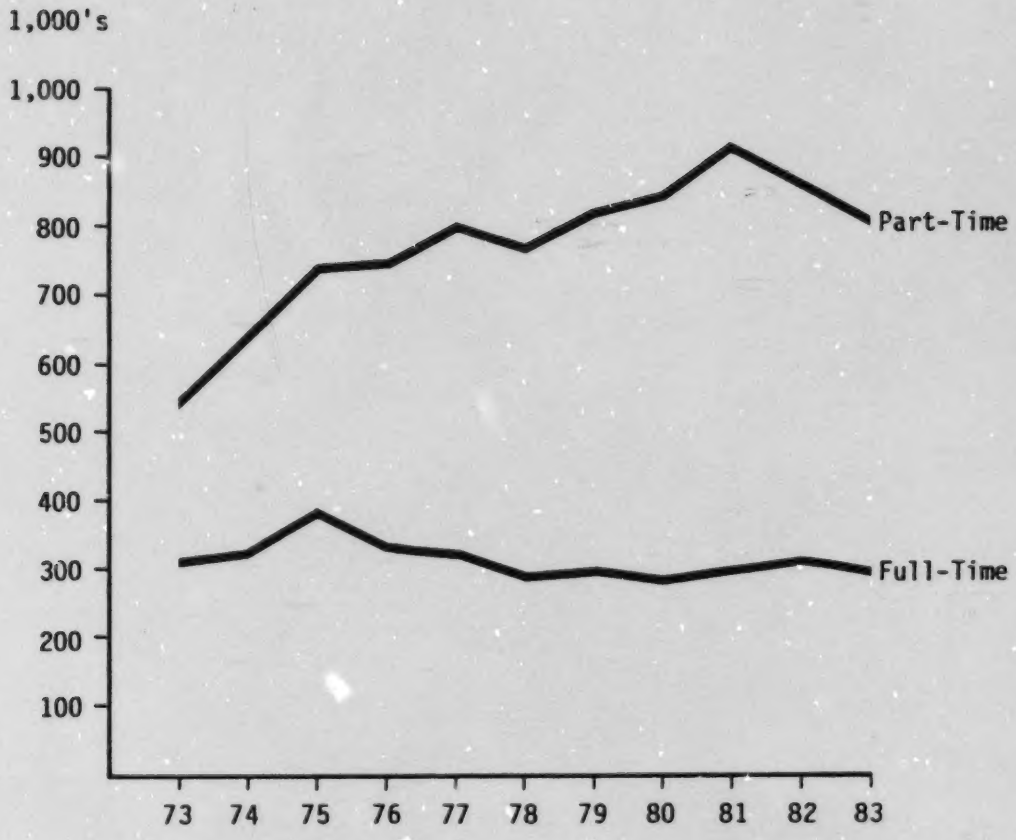
1973-74 - 1983-84

Year	Full Time		Part Time	
	%	No.	%	No.
1973-74	35.9	305,621	64.1%	545,690
1974-75	33.8	323,983	66.2	634,547
1975-76	34.0	374,526	66.0	727,022
1976-77	30.6	328,845	69.4	745,813
1977-78	28.7	320,256	71.3	795,618
1978-79	27.2	284,547	72.8	761,581
1979-80	26.0	284,942	74.0	810,990
1980-81	24.9	281,251	75.1	848,271
1981-82	24.3	294,478	75.7	917,367
1982-83	26.1	303,854	73.9	860,341
1983-84	26.6	284,905	73.4	802,520

Source: California Postsecondary Education Commission, Student Data File. Sacramento, CA: 1974-1984.

Figure IV-1

FULL- AND PART-TIME
CREDIT ENROLLMENT,
1973-74 -- 1983-84



Source: California Postsecondary Education Commission, Student Data File. Sacramento, CA: 1973-74 -- 1983-84.

AGE AND EMPLOYMENT PATTERNS

Community college students are about 10 years older, on average, than the lower division students at UC and CSU, and this difference did not change much over the five-year period from 1977-1981. 6/

Table IV-4 shows that full-time community college students in 1982 had an age profile similar to that of UC and CSU lower-division students: Three-fourths of the full-time students were under 25 years of age. In contrast, older students accounted for more than half the enrollment of those taking fewer than six units (one or two courses), and most of the non-credit enrollment.

Most of these older, part-time students also work part-time while they attend school. Results from studies that have collected information on working students show a fairly consistent pattern: 7/

Study	Year	% of students working
SLS 8/	1978	69.5
FIELD 9/	1984	80.0

While the studies employed different samples and are not strictly comparable, it is nonetheless clear that the great majority of community college students both work and attend school.

ETHNICITY AND GENDER

Data on the ethnic distribution of students in the three segments of California higher education is often incomplete, or is reported in ways that are not comparable. Table IV-5 shows this distribution for two years in which the data have been reported in a comparable manner -- 1976 and 1982. The

TABLE IV-4

CALIFORNIA COMMUNITY COLLEGES
STUDENT AGE DISTRIBUTION BY COURSE CREDIT LOAD
Fall 1982

	Age			
Course Credit Load	Under 20	20-24	25-29	30+
Full-Time (12 or more units)	38.8%	36.7%	11.7%	12.9%
6-11.9 Units	19.8	31.5	18.7	30.0
Fewer than 6 units	9.2	20.8	18.8	51.2
Non-credit	10.0	17.6	14.8	57.6
Percent of Total	18.9	26.9	16.7	37.5

Source: California Postsecondary Education Commission, Student Data File. Sacramento, CA: Fall 1982.

Table IV-5

PROPORTION OF EACH ETHNIC GROUP ENROLLED
IN CALIFORNIA PUBLIC POSTSECONDARY INSTITUTIONS
1976 and 1982*

Ethnic Group	Community Colleges			CSU			UC		
	1976	1982	Change	1976	1982	Change	1976	1982	Change
White	75.1%	68.0%	-7.1%	77.3%	71.7%	-5.6%	80.1%	74.6%	-5.5%
Black	9.0	9.7	0.7	6.8	6.5	-0.3	4.2	3.9	-0.3
Hispanic	10.0	12.5	2.5	7.4	9.2	1.8	5.4	6.2	0.8
Asian	4.2	8.2	4.0	7.2	10.8	3.6	9.7	14.8	5.1
Native Americans	1.7	1.7	--	1.3	1.9	0.6	0.5	0.5	--

*The groups shown in the Table are counted by CPEC as 100% of the reporting base; data on "other" ethnic groups, non-resident aliens and "no-response" are omitted. The latter category is relatively small for both years at CCC and UC, but may be as high as 16% at CSU; data for that institution should therefore be treated with caution.

Source: California Postsecondary Education Commission, Director's Report. Sacramento, CA: March 1984.

table shows that the total proportion of minorities at all three segments increased over this seven-year period, and the increase was dominated by growth in the percentage of Asian students. In both years, there was a higher proportion of minority students at the community colleges than at either UC or CSU, except for Asian students. Looking at the data for Black and Hispanic students only, the table shows that their enrollment as a proportion of all students grew more rapidly at the community colleges between these two years than it did at either UC or CSU: Whereas in 1976 their combined percentage of enrollment was 9.4 percent greater at the community colleges than at UC, this figure grew to 12.1 percent by 1982. At CSU, the Black and Hispanic student proportion of enrollment in 1976 was 4.8 percent below their proportion of community college enrollment; by 1982 this figure had grown to 6.5 percent (though missing data from CSU makes this comparison less reliable; see the note accompanying Table IV-5). The proportion of Black and Hispanic students in the community colleges was more than twice their proportion at UC in 1982, and about half-again as large as their proportion at CSU. 10/

In 1980 -- the last year for which reliable data are available -- the community colleges enrolled approximately 80 percent of all Black and Hispanic high school graduates, 53 percent of all Asian, and 73 percent of all white graduates who went on to postsecondary educational institutions in California. 11/

Whereas by 1982 women were almost 55 percent of all community college students, most of this enrollment was part-time and in non-credit courses. More than half of the full-time students were male, but women represented a clear majority -- some 60 percent -- of the students taking fewer than six units or taking non-credit courses. 12/

STUDENT GOALS

The two studies cited above also asked students why they were enrolled; the study results are shown below.

		Reasons for Enrolling		
Study	Year	Transfer	Acquire or Upgrade Vocational Skills	Other Purpose
SLS 13/	1978	37%	35.5%	27.5%
FIELD 14/	1984	32	50.0	17.0

The increase in the proportion of students interested in vocational skills is consistent with the findings of our fieldwork. At 27 of the 33 colleges we visited, community college personnel reported a significant increase in student interest in vocational education and employment training. About one-third of the colleges in our sample also reported declining enrollments in liberal arts and/or social science courses.

INSTITUTIONAL RESPONSES

ATTEMPTS TO MAINTAIN OR INCREASE ENROLLMENT

The community colleges have attempted to halt or reverse the recent decline in enrollments by encouraging more high school students to enroll, by providing improved screening, course placement, counseling and tutoring services, by upgrading existing programs or developing new courses (particularly to attract more vocational and "non-traditional" students), and by improving their public relations. The effects of these efforts are not yet known.

ASSESSMENT AND COUNSELING

The majority of colleges in our sample made use of some form of test to determine student mastery of or aptitude for mathematics or English. At some campuses, test results were used to determine in which English or mathematics courses students could enroll. At other colleges, students were allowed to enroll in any course, regardless of test outcomes.

Although tests were most often used for placement in mathematics and English courses, a few colleges in our sample used tests to determine placement in other courses where mastery of the curriculum depends on the student having a reasonable level of skill in reading or mathematics. At those colleges, students who wanted to enroll in a history course, for example, had to meet a minimum score on the reading placement examination. This pattern was the exception rather than the rule.

Several colleges in our sample did not use any tests. At some colleges, the staff felt that they knew the students so well that tests were unnecessary. And staff at several colleges felt that a placement examination would intimidate and drive away some students who might otherwise enroll.

Counseling services were available on a walk-in basis to all students enrolled for credit; policies on mandatory counseling varied from campus to campus. State regulations require first-time students who enroll for six hours or more of credit to attend a counseling session; at some campuses this requirement was met through a group orientation. Students on academic probation are also required to see a counselor.

Only a few colleges in our sample reported mandatory counseling that went beyond the Board of Governors' requirements for new students and students on

academic probation. Some required students to meet with a counselor close to graduation and/or required students to have a counselor approve their programs on a yearly basis. Others used form letters to encourage students to visit a counselor at other critical times during their careers (e.g., after they had completed 30 hours of coursework).

STUDENT STANDARDS

The open-door policy at community colleges has come under attack in recent years from several quarters. Critics have charged that the colleges are accommodating too many students who are ill-equipped to handle college work, and that adequate academic standards have not been consistently applied to all students. Partially in response to this criticism, the Board of Governors in 1981 and 1983 put in place several policies to tighten academic standards at the community colleges.

A new statewide grading policy required the issuance of a failing ("F") grade to indicate unsatisfactory course performance and withholding of credit. Before the imposition of this policy, a number of colleges did not fail any students.

In conjuction with the grading policy, the Board of Governors instituted a policy that set an academic floor for students. The policy required that students maintain a grade point average of at least 2.0 ("C"), or be placed on academic probation. The Board also restricted the percentage of withdrawals, incompletes, and elective non-credit units a student could accumulate during the course of a semester, requiring that students be placed on academic

probation if they accumulated more than 50 percent of their course units in any of these categories.

In 1983, the Board adopted a policy that students whose grade point average fell below 1.75 over three consecutive quarter must be dismissed. This was a minimum standard; individual campuses were allowed to impose more stringent regulations.

The effects of these tougher academic standards have not been studied, though many of our panelists and college respondents believe that they have helped to identify and weed out some students who were not serious about (or unable to handle) college-level work.

SUMMARY

This chapter has presented the following findings:

- Almost all of the susbstantial increase in community college enrollment over the last decade has been the result of an increase in the number of part-time students.
- Community college students are older, on average, than lower division students at UC or CSU, but the age profile for full-time students is similar to that of lower division students at UC and CSU.
- Older students account for more than half of those who enroll part-time, and the great majority of all students both work and attend school.
- There was a 7 percent increase in minority students at the community colleges betwen 1976 and 1982, more than half of which took place among Asian students. Over this period, the proportion of Black and Hispanic

student enrollment grew more rapidly at the community colleges than at either UC or CSU. In 1982 their combined proportion of enrollment was more than twice as great at the community colleges as at UC, and more than half-again as great as at CSU.

- o About one-third of all students are interested in transferring to four-year institutions, though over the last several years the proportion of students expressing interest in vocational training has grown substantially.
- o Most colleges require only a few student contacts with counselors. For the most part, students must take the initiative in deciding that they need, and then finding, appropriate assistance.
- o Many colleges test students in English and mathematics. Some use the tests to determine what English or mathematics courses a student must attend; very few use the tests to determine whether students will be allowed to enroll in other courses requiring English or mathematics skills.
- o Tougher academic standards have been in effect since 1981; no data exist on the overall impact of these standards.

NOTES TO CHAPTER IV

1/ This expansion has been widely criticized as extending the charter of the community colleges beyond the intentions of the Master Plan, and introducing a number of courses and programs for which public support was not merited. The legislature mandated a reduction in personal growth and avocational courses in 1981 and made an additional $30 million cut in 1982 (see Chapters II and III).

2/ A further six percent decline is estimated for 1984-85. Although statewide enrollment has been declining, only about half of the campuses we visited during the study were experiencing declining enrollment.

3/ See Note #1.

4/ If the drop in 1978-79 (the year Proposition 13 took effect) and 1979-80 are ignored, the average is 15 percent.

5/ California Community Colleges, Office of the Chancellor, "Student Profile," Field Research Corporation Study. A report prepared for the Board of Governors, California Community Colleges. Sacramento, CA: October 1984.

6/ This is the last period for which reliable data are available. The average age of UC lower division students is about 19, of CSU students about 20, of community college students about 30. (California Postsecondary Education Commission, Information Digest, 1982. Sacramento, CA: 1982, p. 98).

7/ A third study (California Postsecondary Education Commission, Meeting the Cost of Attending College, Sacramento, CA:: April 1984) also found that in 1982-83 75.5 percent of community college students worked. The validity of this study's findings have been questioned on methological grounds, in part because the study sample underrepresents large urban colleges and ethnic minorities. These data are nevertheless consistent with those of the other two studies cited below.

8/ M. Stephen Sheldon, Statewide Longitudinal Study, 1978-1981, Final Report. Sacramento, CA: California Community Colleges, Chancellor's Office, n.d.

9/ California Community Colleges, Office of the Chancellor, "Student Profile," op. cit.

10/ These data are "snapshots" from two points in time; they do not provide a complete understanding of this complex issue. The Office of the Chancellor estimates that Black enrollment declined about 17 percent between fall 1983 and fall 1984.

11/ Percentages compiled from California Postsecondary Education Commission data.

12/ California Postsecondary Education Commission, Student Data File. Sacramento, CA: 1982.

13/ Sheldon, op. cit.

14/ California Community Colleges, Office of the Chancellor, "Student Profile." op. cit. Since the Field survey sample included students enrolled in non-credit courses, the percentage of students reported as interested in transfer may understate the extent of this interest among students enrolled in credit courses.

V. THE TRANSFER MISSION

INTRODUCTION

Over time, one of the most important missions of the community colleges has been the preparation of students to transfer to four-year institutions of higher education. Recently, the community colleges have been criticized in some quarters as not doing well enough in this area. Questions have been raised about both the numbers of students who transfer and the quality of their preparation. Is the rate of transfer to four-year institutions lower than it should be? Are students well-prepared when they transfer? Are all students who wish to transfer served equally well by the community colleges? This chapter addresses these questions; Chapters VI and VII discuss community college vocational education and employment training programs.

TRANSFER RATES

The number of community college students transferring to UC increased from 4,468 in 1969-70 to a peak of 8,193 in 1973-74, then declined steadily to 1969-70 levels before beginning to rise again in 1982-83. Transfers from community colleges to CSU also increased until 1972-73, when they peaked at 53,820 students, before declining to a 1981-82 low of 45,283. 1/

Table V-1 depicts the rate of transfer to UC and CSU as a percentage of total credit enrollment from 1969-70 through 1983-84. It shows that the rate increased from 1969-70 through 1972-73 and declined steadily through 1981-82. The drop from a 1972-73 high of 8.6 percent to the 1981-82 low of 4.1 percent was a decline of more than 50 percent.

Table V-1

TRANSFERS TO UC AND CSU AS A PERCENTAGE OF
TOTAL CREDIT ENROLLMENT
1969-70 - 1983-84

Year	Total Credit Enrollment	Total Transfers	Total Transfers As a Percentage of Total Credit Enrollment
1969-70	602,917	48,421	8.0
1970-71	651,997	54,411	8.3
1971-72	694,790	59,143	8.5
1972-73	710,893	60,985	8.6
1973-74	851,311	59,528	7.0
1974-75	958,530	58,957	6.2
1975-76	1,101,548	60,919	5.5
1976-77	1,074,658	58,353	5.4
1977-78	1,115,374	57,551	5.2
1978-79	1,046,128	53,623	5.1
1979-80	1,095,932	51,975	4.7
1980-81	1,129,522	52,077	4.6
1981-82	1,211,845	50,061	4.1
1982-83	1,164,195	50,537	4.3
1983-84	1,087,425	51,031	4.7

Source: California Postsecondary Education Commission Data.

Recent studies have shown that most students who transfer have attended community colleges on a full-time basis. 2/ Table V-2 shows transfers to UC and CSU as a percentage of full-time community college enrollment; these rates are higher and more stable than the rates of transfer computed as a fraction of all credit enrollment.

Taking this analysis one additional step, Table V-3 shows transfer rates as a proportion of high school graduates who entered community colleges two years earlier. These transfer rates are considerably higher than those derived from either of the two other measures, and are fairly stable over time.

TRANSFERS WHO DO NOT TRANSFER

In Fall 1983, 6,527 students from the community colleges were admitted to UC, but only 5,305 students actually transferred. Nineteen percent (1,222) of those admitted chose not to attend the University. 3/

This group of students who were admitted to the University do not appear in the statistics cited above; these statistics therefore understate the number of students the community colleges prepare for transfer. 4/

TRANSFERS TO PRIVATE INSTITUTIONS

It is estimated that in 1981-82, 4,313 students transferred from the community colleges to private institutions. The estimate for 1982-83 is 4,593 transfers; for 1983-84, the estimate is 4,800. Students transferring to

Table V-2

TRANSFERS TO UC AND CSU AS A PERCENTAGE OF
FULL-TIME CREDIT ENROLLMENT
1973-74 - 1983-84

Year	% of Credit Students Enrolled Full-Time	Total Full-Time Credit Enrollment	Total Transfers	Total Transfers As % of Full-Time Credit Enrollment
1973-74	35.9	305,621	59,528	19.5
1974-75	33.8	323,983	58,957	18.5
1975-76	34.0	374,526	60,919	16.3
1976-77	30.6	328,845	58,353	17.7
1977-78	28.7	320,256	57,551	18.0
1978-79	27.2	284,547	53,623	18.8
1979-80	26.0	284,942	51,975	18.2
1980-81	24.9	281,251	52,077	18.5
1981-82	24.3	294,478	50,061	17.0
1982-83	26.1	303,854	50,537	16.6
1983-84	26.6	290,154	51,031	17.6

Source: California Postsecondary Education Commission Data.

Table V-3

TRANSFERS TO UC AND CSU AS A PERCENTAGE OF HIGH SCHOOL GRADUATES ENTERING COMMUNITY COLLEGES TWO YEARS PREVIOUSLY
1970-71 - 1983-84

Year	% of H.S. Graduates to Community College	Number of H.S. Graduates to Community College	Total Transfers	Total Transfers As a % of H.S. Graduates Entering CC 2 Years Previously
1970-71	46.0	129,358	--	--
1971-72	45.6	128,918	--	--
1972-73	41.8	122,043	60,985	47.1
1973-74	41.3	119,046	59,528	46.2
1974-75	41.3	119,652	58,957	48.3
1975-76	43.1	126,688	60,919	51.2
1976-77	41.7	120,702	58,353	48.8
1977-78	43.3	123,561	57,551	45.4
1978-79	41.4	117,510	53,623	44.4
1979-80	42.1	117,269	51,975	42.1
1980-81	43.0	116,518	52,077	44.3
1981-82	42.1	109,556	50,061	42.6
1982-83	42.4	112,752	50,537	43.4
1983-84	*	*	51,031	46.6

*Data not available.

Source: California Postsecondary Education Commission Data.

private institutions in 1983-84 represented 8.6 percent of total community college transfers.

DO ENOUGH STUDENTS TRANSFER?

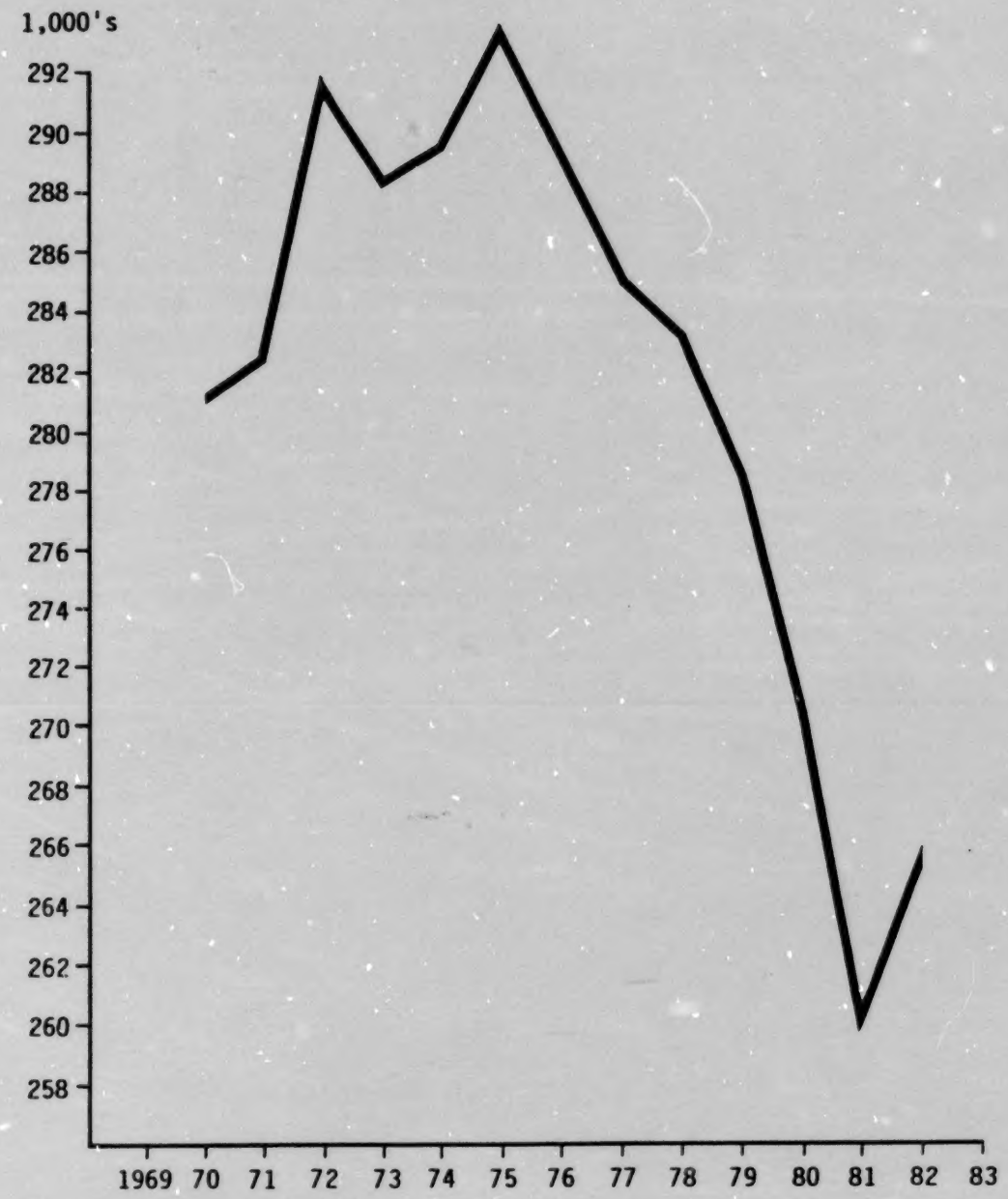
There are no independent criteria to suggest the most desirable or appropriate level or rate of transfer. In this section, we look at the level and rate of transfers to UC and CSU ten years ago, and ask what degree of transfer activity we might reasonably expect in light of changes since then in the numbers and characteristics of community college students.

Chapter IV showed that community college enrollment growth over the last decade has mostly been due to an increase in the number of part-time students enrolled. Since the part-time student transfer rate is only one-third that of full-time students, 5/ the sharp decline in transfers as a percent of total credit enrollment (see Table V-1) is not surprising. Since the number of full-time students enrolled has declined at the same time that part-time enrollment has increased (see Table V-2), the decline over this period in the total number of transfers would also be expected.

We find a similar pattern when we look at the data in Table V-3. From 1970-71 to 1982-83, the proportion of high school graduates entering the community colleges remained fairly stable, so their numbers declined due to the sharp decline over this period in the total number of high school graduates. (See Figures V-1 and V-2). The decline in the number of high school graduates attending community college from 1970-71 to 1981-82 (15 percent) paralleled the decline in the number of students transferring to four-year institutions from 1972-73 to 1983-84 (16 percent). 6/

Figure V-i

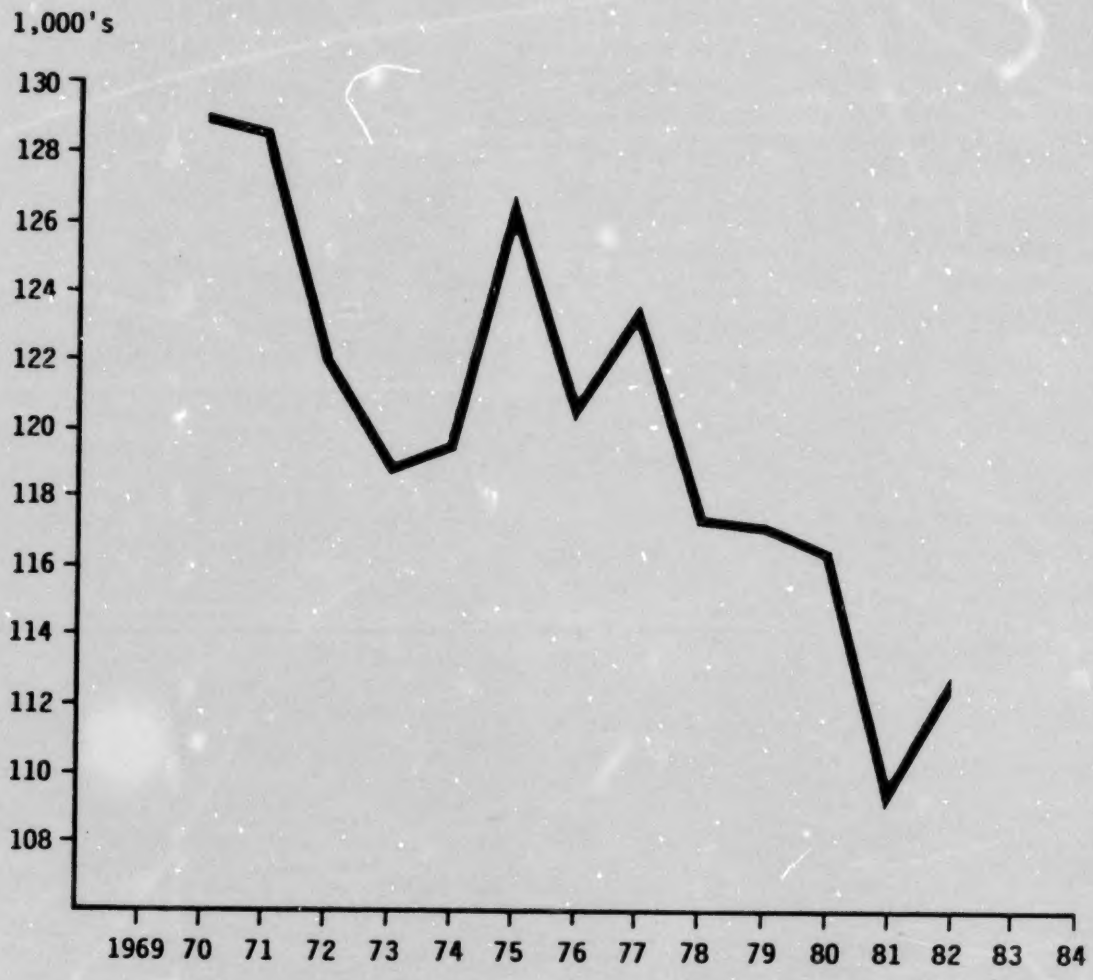
NUMBERS OF STUDENTS GRADUATING
FROM CALIFORNIA HIGH SCHOOLS,
1970-1982



Source: California Postsecondary Education Commission Data

Figure V-2

NUMBERS OF FIRST TIME
FRESHMEN FROM CALIFORNIA HIGH SCHOOLS
ATTENDING COMMUNITY COLLEGES,
1970-1982



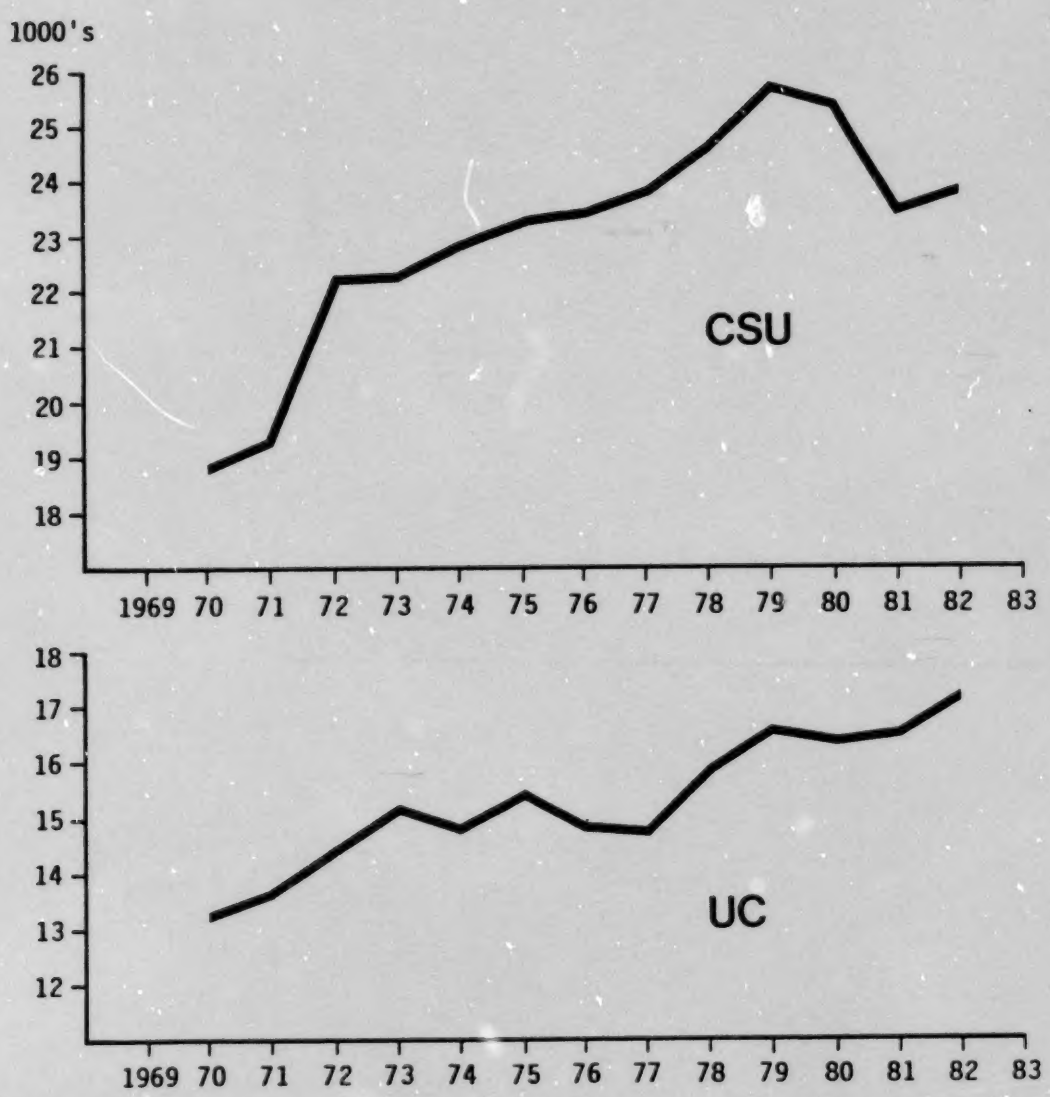
Source: California Postsecondary Education Commission Data

The numbers and rates of transfers one might expect to see also depend to some extent on the proportion of students who enter UC and CSU directly from high school. Figure V-3 shows the numbers of high school graduates who have gone directly to UC and CSU; these numbers have been rising steadily. Given the sharp decline in the total number of high school graduates over this period (Figure V-1), the proportion of high school graduates going directly to UC or CSU has gone up more rapidly than has their rate of enrollment at those institutions. Over the same period, the proportion of high school graduates attending community colleges has remained fairly stable (See Table V-3). This pattern suggests that the proportion of UC- and CSU-eligible high school graduates attending community colleges has been declining. Under these circumstances (i.e., fewer students at community colleges who are both capable of and committed to transferring to four-year institutions), we might expect to see a somewhat lower rate of transfer over time, and transfer rates computed as a percentage of high school graduates in the community colleges (Table V-3), or as a percentage of all full-time students (Table V-2), have in fact declined slightly. 7/

Finally, what level of transfers might one expect in light of changes over time in student goals? As discussed in Chapter IV, two recent studies that provide information on student goals found that between 1978 and 1984 the proportion of students expressing an interest in transfer declined slightly, from about 37 percent in the SLS sample to 32 percent in the Field study. 8/ At the same time, the proportion of students who expressed interest in vocational courses rose sharply, from 35.5 percent in the SLS to 50 percent in

Figure V-3

FIRST TIME FRESHMEN FROM CALIFORNIA HIGH SCHOOLS ATTENDING UC AND CSU, 1970-1982



Source: California Postsecondary Education Commission Data

the Field study. The latter finding is consistent with the findings of our fieldwork.

One possible interpretation of these findings is that many students remain interested in completing a four-year degree, but are increasingly prone to "cover their bets" by also obtaining some vocational or technical training. 9/ Evidence from our field visits indicates that some of these students continue with their vocational studies and decide to seek early employment rather than a college or university diploma.

In light of these findings, one might expect to see the transfer rates of full-time students decline slightly, but remain generally stable. The data in Tables V-2 and V-3 show that this is what has taken place.

In sum, looking back over the last decade, we find that both the number and rate of community college transfers are about what might be expected, given changes over this period in the numbers and characteristics of community college students. Expectations based solely on the historical record, however, may underestimate the potential number of students who could be transferring to four year institutions. This issue is taken up below.

WHO TRANSFERS

As shown in Chapter IV, community colleges enroll a greater proportion of minorities than do either UC or CSU. In 1983-84, minorities were 39 percent of the population of the community colleges, but only 28 percent of the students who transferred to four-year institutions. 10/

In 1982-83, Asians made up 7.3 percent of the full-time enrollment at the community colleges and comprised 11.1 percent of the transfers to UC and 8.5

percent of the transfers to CSU. In that year, Blacks made up 8.6 percent of full-time community college enrollment and Hispanics were 11.1 percent. Black transfer rates in 1982-83 were 3.8 percent and 5.9 percent to UC and CSU respectively, and comparable Hispanic transfer rates were 8.3 and 9.1 percent. 11/ 12/

One way of locking at the ethnicity of community college transfers is to examine the number of transfers by ethnic group as a percentage of the total credit enrollment of that ethnic group at the community colleges. Table V-4 presents these data for 1982-83. From our previous discussion, we know that in 1982-83 16.6 percent of full-time community college students transfered to UC or CSU (see Table V-2). If transfers were evenly distributed across ethnic groups, each group would have a rate similar to 16.6 percent. From Table V-4, we can see that whites and Asians transferred at higher rates than did all full-time students -- 20.2 percent and 19.9 percent respectively. On the other hand, Blacks and Hispanics transferred at a lower rate than did all full-time students -- 10.9 and 13.5 percent respectively.

Roughly equal proportions of male and female students transfer from community colleges to UC and CSU, and most students who transfer are under 25 years of age.

Table V-4

ETHNIC GROUP TRANSFERS TO UC AND CSU
AS A PROPORTION OF FULL-TIME ETHNIC ENROLLMENT AT COMMUNITY COLLEGES
1982-83

	Percentage of Total Credit Enrollment (1)	Total Number Enrolled Full-time (2)	Total Number of Transfers (3)	% of Each Group That Transfers (3/2)
Asian	7.3	22,181	4,429	19.9
Black	8.6	26,161	2,874	10.9
Hispanic	11.1	33,728	4,557	13.5
White	60.7	184,854	37,302	20.2
Total	87.7*	303,851	50,537	16.6

*Table omits data for students identified as "other" and those identified as "Non-resident Aliens" so column does not add to 100%.

Source: California Postsecondary Education Commission Data.

PROGRESS OF TRANSFER STUDENTS AT UC AND CSU

UNIVERSITY OF CALIFORNIA

Several recent studies provide data on the progress of community college transfer students at four-year institutions. A University of California task force report expressed concern about a decline in both the number of students transferring to UC, and the proportion of transfer students who completed degrees in three years, and concluded that too many community college transfer students left UC in academic difficulty. 13/

The data presented in this UC report are susceptible to more neutral interpretations than those made by the report's authors. Looking at a cohort of students who became juniors in 1975 and following them until 1978, the UC task force found that among "native" students (those who enter the University directly from high school), 74 percent who became juniors subsequently graduated within three years. Among those transfer students who would have been eligible to attend the University as freshmen, 71 percent graduated within three years of transferring; of those who would not have been University-eligible, 56 percent graduated within three years. 14/

Staff in the Office of the Chancellor looked at community college transfers who attended UC in 1982-83; they found that transfer students had graduation rates and grade point averages similar to those of students transferring to UC campuses from CSU and from other UC campuses. 15/

A recent study by the University of California 16/ compared the grade point average (GPA) of community college transfers to those of native students and transfers from other four-year institutions. The study shows that in 1982-83, the native student GPA was 2.96 and the GPA for transfers from other

four-year institutions was 2.69. The first-year GPA for "high-school eligible" community college transfer students was 2.93; those who had not been eligible to attend UC directly from high school had a GPA of 2.67. Other recent studies have yielded similar findings. 17/

CALIFORNIA STATE UNIVERSITY

There is less statewide data on the record of community college transfers at CSU. The CSU Chancellor's Office staff have cited data showing that for the period 1973-74 - 1980-81, native students had a slightly higher graduation rate than community college transfers. 18/ Community college Chancellor's Office staff have found that transfer student grade point averages in 1982 were about the same as those of native students and transfers from other institutions. 19/

In sum, students who were originally eligible for UC or CSU have done about as well as native students, both in terms of performance in upper division courses and in graduation rates. As one would predict, transfer students who were not eligible for UC or CSU from high school did less well than UC or CSU natives or UC- or CSU-eligible transfers from community colleges.

ROOM FOR IMPROVEMENT

We have seen that the number and rate of community college transfers to four-year institutions is about what could be expected when taking into account various changes in the student population over the last decade. And

community college transfers seem to do almost as well as "native" students at UC and CSU. In other words, the community colleges appear in this area to be doing as well today as they have done in the past. Could they do better? Our findings reveal a number of ongoing problems, and room for improvement.

BLACK AND HISPANIC STUDENT TRANSFERS

As we have seen, the percentages of Black and Hispanic students who transfer are smaller than the proportion of those students enrolled at the community colleges, though Black and Hispanic students have expressed as much interest as have other ethnic groups in transferring to four-year institutions. 20/

Some community college campuses and four-year institutions have recently instituted special programs to increase the number of minority transfers, and there is some indication that such programs may be effective. 21/

These recent efforts notwithstanding, the data show that Black and Hispanic students continue to be underrepresented among transfers. Cutbacks in counseling services (discussed below) have made it difficult for many colleges to address this issue. Respondents at many campuses we visited also told us that minority students' financial needs often impel them to seek early employment, and that existing financial aid programs do not always provide the support needed to deal with this problem. In a few cases, we found that college counselors or administrators seemed to believe that minority students would naturally gravitate toward vocational education and employment training rather than transfer studies. In these instances -- which were not widespread

-- the attitudes and expectations of college personnel may have been a barrier to effective programs to increase minority student transfer rates.

COUNSELING AND INFORMATION

The colleges in our sample reported using a wide variety of measures to inform students about transfer requirements. Most campuses provided information on transfer requirements in their catalogs, but the amount and clarity of this information varied widely. Other measures reported include:

- Using faculty acting as either formal or (more typically) informal advisors;
- Making professional and peer counselors available;
- Providing short courses on the transfer process;
- Requiring students to obtain academic counseling.

Other than required counseling, these strategies assumed that students would take the initiative in seeking counseling support and information. Some colleges in our sample used a series of reminder letters to encourage students to seek counseling, but this was the exception rather than the rule.

Most of the colleges we visited were having trouble finding the resources needed to support the level of counseling they felt was desirable; three-fourths of the sites in our sample reported insufficient funds for more student testing and follow-up. We found that many counseling staffs had been cut back and workloads had increased in recent years; three-fifths of the campuses we visited cited inadequate counseling staff relative to the size of their enrollment. Counseling and screening efforts have not had high priority on most campuses, and they are still not well supported financially. 22/

COURSE STANDARDS

In attempting to offer the courses necessary to maintain a complete transfer program, or to keep enrollments up in those courses, some instructors have had difficulty maintaining course standards. One respondent reported that: "The level of classes is slowly deteriorating. Because so much emphasis is placed on generating ADA, instructors allow students with lower academic ability to enroll." Another respondent pointed out that "The ADA drive prevents instructors from assigning the kind of work necessary for transfer, such as papers to write, because students will flock to less demanding instructors. So there is a problem in maintaining the appropriate standards for courses." These issues are discussed in more detail in Chapter III.

COORDINATION WITH UC AND CSU

In order to make sure that students are able to transfer to UC or CSU without unusual delays, community colleges and four-year institutions often coordinate their efforts. The amount and type of coordination varies across colleges; our fieldwork found four major categories of coordination:

1. Articulation efforts to insure that courses at the community colleges and lower-division courses at the four year institution(s) were comparable;

2. Coordinated counseling to insure that students who wanted to transfer had up-to-date and complete information;

3. Individualized assistance to students wishing to transfer;

4. A combined approach, by implementing articulation agreements with the help of counselors jointly employed by the community colleges and the four-year institution.

It is not possible to determine from our data which of these strategies worked best in support of the transfer function. And despite these efforts at coordination, some problems remain.

Community college staff were concerned that UC and CSU campuses had often changed their transfer requirements without coordinating the changes with the community colleges. The changes in requirements often meant that additional courses had to be taken, further delaying the transfer process for many students.

Many colleges attempted to improve their transfer programs by acquiring information on the progress of their transfer students at UC or CSU. This information has been: 1) reported consistently only by larger, nearby UC and CSU campuses; 23/ 2) reported differently by different campuses; and 3) sometimes reported too late to be useful.

A few of the campuses in our sample did their own follow-up studies on transfer students, but most relied on the four-year institutions for this information, since they have had to cut back or dismantle their own research departments.

SUMMARY

This Chapter has presented the following findings:

- The decline in transfer rates over the last ten years has been relatively modest for full-time students and recent high school graduates, who have traditionally had the highest propensity to transfer. In light of various changes in student characteristics over the last decade, this decline is about what could have been expected.

- The proportion of Black and Hipsanic students who transfer to UC and CSU is about half as great and two-thirds as great, respectively, as the proportion of white or Asian students who transfer.
- Community college transfer students who had originally been eligible to attend UC or CSU perform about as well at those institutions as students who entered them directly from high school. Transfer students who had not originally been eligible to attend UC or CSU had somewhat lower achievement.
- A number of problems at the community colleges impede improvements in transfer education:
  - -- Relatively weak programs for providing special assistance to minority students, who remain underrepresented in transfers to four-year institutions;
  - -- Inadequate support for counseling and screening efforts;
  - -- Lowering of course standards in order to maintain or increase enrollments; and
  - -- Uneven quality in processes for articulation and coordination with four-year campuses.

NOTES TO CHAPTER V

1/ Data are from the California Postsecondary Education Commission. Transfer statistics are collected by the receiving institution (e.g., UC and CSU). There are no data available on the number of students transferring to institutions outside the state.

2/ California Community Colleges, Office of the Chancellor, Transfer Education: California Community Colleges. Sacramento, CA: October 1984; Stephen Sheldon, Statewide Longitudinal Study, 1978-1981, Final Report. Sacramento, CA: California Community Colleges, Office of the Chancellor, n.d. The Statewide Longitudinal Study found that only 22 percent of the students who transferred by 1981 had attended community colleges part-time.

3/ Frank S. Baratta and Ed C. Apodaca, "A Profile of California Community College Transfer Students at the University of California." Berkeley, CA: University of California, Office of the President, September 1984.

4/ CSU has not historically collected systemwide data on transfers who do not enroll. Beginning in Fall 1984, CSU began to collect more data on transfers (including non-enrollees). Data are not yet available.

5/ See note #2.

6/ The similarity in the decline in rates is in part a coincidence; not all transfers are high school students who entered community college two years previously. However, the typical transfer student is a recent high school graduate, and changes in the numbers of high school graduates attending community college would have a strong influence on the transfer rate.

7/ The extent of this influence should not be overstated: The increase over the decade in the numbers of California high school students attending UC or CSU directly is unlikely to have come entirely from students who otherwise would have attended community colleges. The percentage of recent high school graduates entering private postsecondary institutions in California remained relatively stable over the period from 1977 to 1982; data are not available on high school graduates who entered public and private out-of-state institutions. Economic circumstances may have forced some students who might otherwise have attended an out-of-state institution to remain in California and attend UC or CSU. At the same time, studies conducted by the California Postsecondary Education Commission have also shown a substantial decrease between 1975 and 1983 in the number of UC- and CSU-eligible high school graduates attending the community colleges. (California Postsecondary Education Commission, Director's Report. Sacramento, CA: April 1984.)

8/ Sheldon, op. cit; California Community Colleges, Office of the Chancellor, Field Research Corporation Study, "Student Profile: Report prepared for the Board of Governors, California Community Colleges." Sacramento, CA:

October 1984. The Field study sample included non-credit students, who are least likely to transfer.

9/ See Chapter VI for a discussion of this student course-taking pattern. Some students who do not express an interest in transfer nevertheless eventually go on to four-year institutions; the recent increase in interest in vocational courses may also mean that there are now fewer students in this category.

10/ California Community Colleges, Transfer Education, op. cit.

11/ California Postsecondary Education Commission, 1983 Update of Community College Statistics. Sacramento, CA: March 1984. Of necessity, these comparisons yield only an approximation of the relationship of transfer rates to enrollment. In any given year, enrolled students are one, two, or more years away from being able to transfer.

12/ Enrollment data by ethnicity for other years are not available in comparable form. Reported data for other years assumes no bias in the "unknown" category and distributes those students across ethnic groups. Because of the magnitude of missing data on ethnicity of transfers, particularly at CSU, enrollment data by ethnicity has not been converted here to that form.

13/ Gerald R. Kissler, Chairman, Retention and Transfer: Undergraduate Enrollment Study. Report of the Task Group on Retention and Transfer. Berkeley, CA: University of California, Office of the Academic Vice-President, June 1980.

14/ Ibid., p. 22. The report does not say how many students were in each cohort, so the relative importance of differences between the two groups is difficult to assess.

15/ California Community Colleges, Transfer Education, op. cit.

16/ Frank S. Baratta and Ed C. Apodaca, op. cit.

17/ Testimony of Kurt Laurisden, Chair, Community College Counsel, and Director, Student Learning Center, UC Berkeley, to CPEC Ad Hoc Committee on Community College Transfer (1984). In California Postsecondary Education Commission, Views From the Field on Community College Transfer. Sacramento, CA: August 1984.

18/ Office of the Chancellor, California State Universities, Those Who Stay: Phase IV. Long Beach, CA: 1983, p. 22.

19/ California Community Colleges, Transfer Education, op. cit., p. 30.

20/ The percentages expressing interest in transfer were: American Indian and Hispanic 31 percent, Non-Hispanic White 32 percent, Asian 33 percent, and

Blacks and Filipino 35 percent. (California Community Colleges, Office of the Chancellor, Field Research Corporation Study, op. cit.)

21/ California Community Colleges, Transfer Education, op. cit., p. 25.

22/ These priorities may change if the recently developed "matriculation model," which call for substantial increases in counseling, is implemented.

23/ Respondents reported that nearby campuses of the four-year institutions were more likely to provide feedback. Smaller campuses and those distant from the community college provided information on a more sporadic basis. Feedback was more complete when community colleges made a greater effort to obtain the information.

VI. VOCATIONAL EDUCATION AND EMPLOYMENT TRAINING

INTRODUCTION

Many different programs, large and small, offer a variety of education, training, counseling, placement and other employment preparation services to California citizens. At least seventeen different programs for adults are authorized, operated, funded or administered by the State. 1/

Only three of these programs serve the general public: community college vocational programs, adult education through the secondary schools, and apprenticeship training. 2/ By any measure, the community college programs are significantly larger than any other; the Chancellor's Office reported an unduplicated annual headcount for 1982-83 of approximately one million. 3/

The next largest program, adult vocational education through the secondary schools, enrolled about 254,000 people in 1980-1981, while during 1981-82 there were 34,464 apprentices. 4/

The remaining programs provide some services for a wide variety of special populations, such as people on welfare, displaced workers, and the economically disadvantaged. Many of the people involved in these programs receive only minimal services and are not enrolled in training.

This chapter discusses vocational education and job training programs in the community colleges, and provides a brief overview of materials presented in Volume 3, Chapter VI, describing cooperative community college/business and industry efforts.

COMMUNITY COLLEGE VOCATIONAL PROGRAMS

Community colleges offer a wide variety of vocational programs -- prescribed sets of courses that students must complete satisfactorily in order to earn a certificate of achievement or associate degree. A recent study has identified 472 program titles, and the California Association of Community Colleges reports that the colleges offer more than 5,200 separate programs. 5/ An inspection of the catalogs from just the seven colleges in Santa Clara County reveals that 356 classes in 185 different courses are available; a similar range of offerings is available elsewhere in the state, though the programs offered by each college reflect its local labor market and economy.

Community colleges provide a wide range of support services for students, directed at helping them make appropriate career choices, perform successfully in their classes, and find the kinds of jobs for which they have trained. Little data are available on the quality or effectiveness of these support services; many colleges have had to cut back in this area since Proposition 13. Only 38 percent of the vocational students questioned in the 1978-81 Statewide Longitudinal Study (SLS) reported using counseling services. 6/

NUMBERS AND TYPES OF STUDENTS TAKING VOCATIONAL COURSES

The SLS found that vocational students in 1978 totaled 35.5 percent of the 6,490 students in the study sample. 7/ The majority of these students did not intend to complete a certificate or degree program; vocational students were seeking entry-level job skills (38 percent) and up-grading of job skills (36 percent) far more than program completion (16 percent). The remaining reasons

for taking vocational courses were to change careers (9 percent) and to maintain licensure (2 percent). 8/

The Field Research Corporation's 1984 survey of community colleges reported that 50 percent of the respondents described seeking occupational skills as their reason for attending college.

While it is impossible to tell from the Field data how many students wanted to complete programs, 65 percent of all the respondents were part-time students. At least 15 percent of these students already held bachelors or advanced degrees.

As described in the Longitudinal Study and the Field Research report, then, vocational students are primarily adults seeking up-grading of their current skills or entry into new jobs. A sub-category of the vocational students are younger, often full-time students seeking access to employment.

FINANCIAL SUPPORT FOR VOCATIONAL PROGRAMS

The Chancellor's Office estimates that $590 million was spent in 1982-83 on vocational education programs and services in the community colleges. About $22 million was from the federal Vocational Education Act; the rest came from state and local sources. About 85 percent of this $568 million supported instructional programs. 9/

FACILITIES AND EQUIPMENT

Since the passage of Proposition 13, facilities upkeep and repair expenditures at most campuses have been minimal. In many cases, only essential safety and security maintenance has been funded.

A recent study has estimated that $60 million a a two-year period is needed to bring instructional equipment in vocational programs up to date. 10/ Donations from industry have sustained some vocational programs that would otherwise have had to be curtailed due to obsolete or unsafe equipment.

PROGRAM DEVELOPMENT

Individual districts and colleges identify local training needs and develop programs to meet those needs in a wide variety of ways, including information from local employers and advisory committees, as well as from the EDD and other state and local agencies.

New programs tend to be added when industry input, student demand, and facilities and equipment donations come together. Many colleges are able to develop and pilot new programs by offering them first at an industry site or through a job training program, and then adding campus facilities and equipment as resources allow.

State Program Approvals

Title V of the Administrative Code requires that each new program offered by a community college, and each new course that is not part of an established program, be submitted to the Chancellor for prior approval. 11/

The California Postsecondary Education Commission also reviews proposed new programs. Its staff has 60 days in which to express its concurrence or non-concurrence with the recommendation of the Chancellor's Office to approve a new program. It may also request additional information.

The table below shows the number of all new programs (vocational and non-vocational) approved from 1978-9 through 1983-4, and the number of programs approved in Engineering and Related Technologies and Computer and Information Sciences combined, and in Business and Management. 12/

	1978-9	1979-80	1980-1	1981-2	1982-3	1983-4
All programs	60	57	62	63	37	16
Engr/Computer	14	15	15	20	9	10
Bus/Management	8	9	12	7	1	0

No other program areas except apprenticeship had more than 5 new programs approved in any one year. Health occupations was the next most frequent category of new programs, with 25 approved over the six years cited.

The Chancellors' Office staff attribute the sudden decline in the number of new programs approved in the last two years to "stringent financial conditions and the growing maturity of the educational programs of the community colleges." 13/

STAFFING

Individuals qualify for vocational credentials through various combinations of education and work experience in specific fields. Frequently, state credentialing requirements make it difficult for the colleges to hire the most expert instructor available because his or her qualifications do not exactly match state rules. For example, a social scientist who is an expert on organizational communication may not teach a business communications class

without obtaining a business instructor's credential. A person whose academic degrees are in mechanical engineering may not qualify to teach electronics, even though he has several years of work experience in electronics.

Some instructors will teach for many years with no further training, and a number of organizations (and the state legislature) believe that up-dating instructors on teaching methods and changes in their fields is a major issue. 14/

Instructors who are employed (or have recently been employed) in industry frequently bring state-of-the-art knowledge to college classrooms, labs and shops. Often, these are part-time instructors, who usually do not participate in curriculum development, department governance, student advising, text and equipment selection, and other important activities. Part-time instructors frequently do not receive as much supervision and evaluation as do full-time faculty; they usually do not have office space or clerical support; and their salaries and benefits are generally lower than those of full-time instructors. Approximately three-fourths of all vocational education instructors are part-time. 15/

In the newer, more technical fields, our fieldworkers were told, good faculty are difficult to find, and more difficult to keep, because the college cannot match high industry salaries. Salary levels depend both on advanced academic degrees or coursework (which few vocational faculty have) and on years of teaching experience. While most districts give vocational faculty some credit for employment experience (typically allowing credit for one year of teaching experience for every two years of job experience), vocational faculty who take time (e.g., a sabbatic year) to upgrade their skills by

acquiring additional practical work experience in their field rarely receive any credit toward salary advancement. A liberal arts instructor, on the other hand, who uses sabbatic or other time to earn additional college credits or another degree, can move up the salary scale accordingly.

PROGRAM MANAGEMENT

Data on the backgrounds of people administering vocational programs are not readily available, but at least some positions dedicated to the management of occupational education have been eliminated or combined with other functions in the last few years. In some cases vocational programs have been assigned to general managers such as Deans of Instruction. In other cases, as they have retired or been re-assigned, vocational education managers have been replaced by administrators with no industrial work experience or knowledge of vocational programs.

With notable exceptions, few community college leaders have any personal background or work experience in any of the occupational careers in which their institutions train people.

On the whole, the Chancellor's Office staff has little vocational education background, and many members of the staff have little or no first-hand experience of community colleges.

A detailed study of the administration of vocational education in the Chancellor's Office was conducted in 1982 by a research team from the University of California at Davis. 16/ The research team identified "the lack of leadership in vocational education in the Chancellor's Office" as a top priority, blaming it for poor internal management practices, inappropriate

utilization of human resources, and "what the field perceives as inefficient, unresponsive implementation of vocational education services." 17/ A new Director of Vocational Education has recently been appointed in the Chancellor's Office.

Program Evaluation

While extensive efforts have been made to evaluate occupational programs, there remains much more to learn about these programs. In particular, objective, quantifiable data are still comparatively rare. Most evaluations have involved a self-study process, followed on occasion by "validation" by a visiting team of experts. During our site visits, college personnel expressed considerable frustration at this lack of hard data with which to evaluate vocational programs.

Several experts have argued that community college vocational programs are not serving students or employers as effectively as they could, or as effectively as private for-profit proprietary schools and colleges. 18/

Others have argued that this criticism ignores the great variety of community college students compared to the selective populations served by proprietary schools. 19/ More thorough research is needed before the relative merits of community college programs and other training options for specific kinds of students can be assessed accurately.

COMMUNITY COLLEGES AND JOB TRAINING PROGRAMS

In addition to vocational education, colleges around the state are becoming increasingly involved in ETP, JTPA and contract instruction.

The Employment Training Panel was established in January, 1983, and in its first 23 months, the Panel has committed up to 87.5 million dollars to train up to 28,308 people who are unemployed or in danger of being laid off. 20/ ETP is funded from unemployment insurances taxes, and is administered by a seven-member panel appointed by the Governor and leaders of the state legislature. 21/ No training is supported unless the employers who will hire the trainees are identified and consulted about the adequacy of the training. 22/

The Jobs Training Partnership Act, in contrast to ETP, is administered by Private Industry Councils, which were established to insure local, private industry involvement in establishing priorities for designing and delivering training services. Information on the total scope of JTPA efforts is difficult to obtain, because the JTPA Service Delivery Areas are funded directly by Washington. The Chancellor's Office reports that approximately 164 JTPA projects were operated in conjunction with community colleges in JTPA's first two years, training 20,000 participants. 23/

Colleges that provide job training to ETP, JTPA or employers through contracts have to make many adjustments in their structures and procedures to meet contract terms. Employers and job training agencies want short-term, intensive, "hands-on" programs that will move participants into employment immediately. Usually such programs compete directly for staff, facilities and

administrative support with the colleges' most popular regular vocational programs.

Job training programs also frequently require customized curriculum development, which few colleges are organized and staffed to provide, and some ETP/JTPA programs require the college to provide placement services. "Performance-based contracts" require specified levels of completions and placements before the college involved can collect the full value of the contract.

Job training programs have been controversial at many colleges. Our field interviews revealed that some instructors and administrators view them as a threat to regular vocational programs or an inappropriate use of limited resources. The programs make a direct connection between income and "product" -- people who are employable or who have acquired measurable new skills -- explicit in a way that is unfamiliar to most educators.

A VARIETY OF OPTIONS

To summarize the many opportunities available to an individual through most community colleges, consider the ways in which a person interested in learning electronics could become involved in courses and services at his or her local college.

At least the following possibilities are available at almost every college in the state:

-- As a full-time day or evening student, taking a one-year certificate or two-year degree program;

-- As a part-time day or evening student pursuing a certificate or degree;

-- As a student taking part or all of one or more courses but not interested in a degree or certificate;

-- As a full- or part-time, day or evening student in a transfer program, taking supplemental courses;

-- As a student accepted into a special short-term, intensive program;

-- As an employee in a contract class, paid for by an employer company, at a company site (possibly using college equipment on loan or trucked in periodically) or at a college site;

-- As a JTPA or ETP client, at a regional training center, or at a company or college site, as above;

-- As a registered student or drop-in visitor, using the career center and vocational counseling services to explore electronics as a career.

Many of these choices can overlap in specific classes and laboratories. Students in the first four categories are likely to be sitting next to each other, at least in beginning courses, and individuals frequently move from one category to another.

The relationships between the regular programs and job-training programs can be quite complex. The college's curricula, staff, and facilities for its regular certificate and degree courses are always the starting point for special short-term training programs, however they are funded. Frequently, existing curricula or parts of programs are adapted to meet the needs of special populations. If a new curriculum has to be developed to meet a particular company or program need, it is usually prepared at least in part by the full-time instructors in the appropriate division, and approved both by the Advisory Committee for its area and the college's regular curriculum development committees.

At times these special programs help the college develop courses, buy equipment and hire staff that can improve regular programs. At other times,

there can be disruptive competition between JTPA, ETP, contract instruction and regular programs for limited facilities and staff.

COOPERATION BETWEEN COMMUNITY COLLEGES AND BUSINESS, INDUSTRY AND GOVERNMENT

We found many examples of programs in which business and industry and community colleges are working closely together to prepare people for employment and/or to upgrade workers' skills. A representative cross-section of these programs is described in Chapter VI, Volume 3 of this report.

The programs described include:

1. Regular vocational programs:
   - o A college advisory committee;
   - o A community college district - medical center partnership;
   - o A special relationship between a college and a local company, supported in part by company equipment donations.
2. Job training programs:
   - o An Employment Training Panel Center;
   - o An Occupational Training Institute;
   - o A worksite training program;
   - o A contract instruction program.
3. A single-purpose cooperative organization:
   - o An Industry-Education Council composed of four major companies and thirty colleges from fourteen districts, that has developed a college curriculum keyed to industry needs.
4. Multi-purpose organizations:
   - o A non-profit center, jointly sponsored by industry and community college leaders, that acts as a clearinghouse for labor training information and a brokerage for coordinated training efforts;

- An Employment Training Forum organized by businesses, a state agency, and community college districts to improve the match between community college training and employer needs.

CHARACTERISTICS OF SUCCESSFUL PARTNERSHIPS

What are the key ingredients of cooperative programs that both the colleges and business and industry regard as models of successful collaboration? The programs we studied reveal a number of common features:

1. A clear need for specific types of workers;
2. Support from the highest level of all organizations;
3. Careful, comprehensive planning that included all participants;
4. Sustained efforts by all the organizations and people involved.

SUMMARY

This Chapter has presented the following findings:

- Community college programs are by far the largest source in California of vocational and employment preparation.
- About half of all community college students enroll primarily in vocational or job training courses. Approximately two-thirds of these students are enrolled part-time to learn or upgrade job skills rather than earn a certificate or degree, and at least 15 percent already hold bachelors or advanced degrees.
- Most colleges have spent relatively little on facilities upkeep and repair over the last seven years, and much vocational program equipment is obsolete.
- State credentialing rules often make it difficult for colleges to hire the best available vocational instructors.

- Some instructors teach for years without keeping up with their fields or improving their teaching skills; many others bring state-of-the-art knowledge to the classroom.
- In newer, more technical fields, good faculty are hard to find and keep because the colleges cannot match high industry salaries.
- With some exceptions, few community college administrators have experience in any of the occupations in which their campuses train students. The Chancellor's Office staff has little vocational education background, and has been criticized by an independent study for poor management of vocational services.
- Most evaluations of vocational programs involve "self-study;" there are virtually no objective data on program effectiveness.
- In addition to vocational education, many community colleges are involved in programs that provide specific job training. These programs compete with regular vocational programs for campus resources, and are controversial at many colleges.
- Successful joint community college-business programs require a clear need for specific types of workers, high-level college and business support, comprehensive planning, and sustained effort.

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6/ Stephen Sheldon, Statewide Longitudinal Study (SLS). Sacramento, CA: California Community Colleges, Office of the Chancellor, n.d., pp. 5-41.

7/ Almost 37 percent of the students were classified by the SLS as Transfer; the rest were categorized as Special Interest.

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16/ Barbara G. Goldman and O.E. Thompson, Co-investigators, Final Report, Vocational Educaton Management Study." Davis, CA: University of California, Department of Applied Behavioral Sciences, November 1982.

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18/ Wellford W. Wilms, "Private Training and the Public Interest: A Study of California's Proprietary Vocational Schools." Santa Monica, CA: Training Research Corporation, 1984, p. 11.

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20/ "The Employment Training Panel," Newsletter, December 1984, p. 1.

21/ It is illegal to use unemployment insurance taxes to pay for training. To fund the ETP, unemployment insurance taxes are reduced by a small amount, and a new tax, equivalent in size to this reduction, is levied.

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VII. EDUCATION FOR EMPLOYMENT OVER THE NEXT TWENTY-FIVE YEARS

David Stern

INTRODUCTION

As Chapter VI described, community college programs are the largest source of vocational and job training in California, and most students in these programs are enrolled part-time to learn or upgrade job skills. Over the next quarter-century, however, a growing demand for workers with a high level of general competence is likely to conflict with the desires of many students to be trained quickly in specific skills. This chapter describes the kinds of skills and knowledge that are likely to be required of workers in the future, and discusses the implications of these requirements for vocational education programs.

THE NEED FOR FAST LEARNERS

Workers must keep learning for two main reasons: Every job presents new problems, and workers move from one job to another. Even in the absence of technological change, shifts in market conditions help some companies grow while others go out of business, and workers often change jobs in order to obtain higher pay or better working conditions. Technological change adds more novelty to existing jobs, and speeds the process of job destruction and creation.

One of the clearest statements of what workers will need to know in the next five decades was written by the Panel on Secondary School Education for the Changing Workplace, convened by the National Academy of Sciences to describe the kind of competence employers will want high school graduates to possess.

The panel found:

> The major asset required by employers of high school graduates ... is the ability to learn and to adapt to changes in the workplace. The continual evolution of work functions will require that workers master new knowledge and new skills throughout their working lives. The ability to learn will be the essential hallmark of the successful employee. 1/

To provide the basis for continued learning and adaptability, the panel listed ten "core competencies" that high school graduates should possess: 2/

- Command of the English language
- Reasoning and problem solving
- Reading
- Writing
- Computation
- Firm grounding in science and technology
- Oral communication
- Interpersonal relationships
- Social and economic studies
- Personal work habits and attitudes

The importance of workers' ability to keep learning, and the necessity of broad, theoretical understanding as a basis for that continued learning, has been recognized by labor unions as well as employers. In a 1983 strike of telephone workers, for example, the Communications Workers of America (CWA), won a set of provisions to protect workers against loss of employment due to organizational and technological change. One important clause provides training that is "generic in nature as opposed to job specific." 3/

THE INFLUENCE OF "HIGH TECHNOLOGY"

In 1981 and 1982, when the U.S. economy was entering its second recession within a decade, it was hoped that just as manufacturing had come to dominate agriculture in the first industrial revolution, now manufacturing itself was giving way to a post-industrial or "information" based economy, in which technology and training would absorb surplus labor. In 1982, the California Commission on Industrial Innovation stated:

> It has become clear in recent months that today's economic problems are not merely cyclical in nature, but reveal structural problems in our economy... It is clear that unless America invests in new technologies, research and development, and education, we may be forced to pay the price in continued declines in productivity, slow growth, and high unemployment for years to come. 4/

However, what appeared to be "clear" in the 1982 recession became less self-evident on second thought. 5/ 6/ First, standard projections of employment by occupation show that most new jobs in the next decade will not be created in "high-tech" occupations. According to the U.S. Bureau of Labor Statistics (BLS), the forty occupations estimated to have the largest numbers of new jobs between 1982 and 1995 account for 49.6 percent of the total projected growth in employment. 7/ At the top of the list are clerical and service occupations that are not the creation of any new technology, and that have not traditionally required education beyond high school.

These forty occupations overlap very little with the list of occupations that are projected to grow at the fastest rate. 8/ This latter set does contain more technical occupations, including several associated with the development and use of computers and electronics. However, the fastest

growing occupations are relatively small to begin with, so they do not contribute much to total growth.

In California, too, most new jobs are not high-tech. In 1980, the distribution of employment among major occupational categories in California was similar to the national distribution, and occupations expected to provide the most job openings in California from 1980 to 1985 are like those occupations projected by the BLS to add the most jobs nationally from 1982 to 1995. 9/ Clerical and service occupations predominate in both cases, and none of the California occupations are created by high technology.

In 1983 Business Week commissioned Data Resources, Inc. to forecast growth in high-tech industries, and found:

> the number of high-tech jobs created over the next decade will be less than half of the two million jobs lost in manufacturing in the past three years. 10/

A 1983 report by the AFL-CIO on The Future of Work concurred, "There won't be enough 'high tech' jobs to replace the jobs lost in declining industries." 11/

While there is widespread agreement that only a fraction of new jobs will be in occupations that are clearly identified with new technologies, there is disagreement about how technological change is influencing the skills required by workers. The debate raises three questions: Do the occupations created by technological change require more skill than the jobs it eliminates? Does the impact of new technology on existing jobs increase or decrease skill requirements? And, within the fast-growing industries that produce hardware for the new technologies, do workers require more skill or knowledge than in other industries?

Henry Levin and Russell Rumberger of Stanford University have challenged the conventional view that high-tech occupations such as computer programmer and systems analyst require more skills than declining occupations like drafter and office machine operator. 12/ 13/ They point out that computer programming has become more routinized, and they argue that this is only one current example of a "deskilling" process through which employers seek continually to reduce labor costs and increase managers' control. In general, they assert that the application of new technology ultimately reduces skill requirements in the workplace, except for a few top jobs. This challenge to the conventional view has not yet been tested, and the impact of new technology on skill requirements in existing jobs is also unknown.

However, both the replacement of old occupations by new ones and the installation of new technology in existing jobs require people to change. Even if the new routines are no more demanding than the old ones, they are different. This is why the NAS panel decided "learning to learn" will be so important. All workers will have to know how to change.

Finally, there is evidence that more highly skilled workers are employed in making the high-tech hardware to which everyone else will have to adapt: computers, communication equipment, electronic components, and instruments. California's high-tech manufacturing industries, and computer manufacturing in particular, employ a substantially higher proportion of professional and technical workers than do other industries. 14/

In California, manufacturing high-tech equipment (computers and instruments) occupied only 4.2 percent of the state's workers in 1981, so again the quantitative impact on employment was small. But this fraction is

projected to grow to 4.9 percent in 1991. 15/ The state's share of national employment in this sector is projected to grow from 22.6 percent in 1981 to 24.4 percent in 1991 -- much higher than its 10.8 percent share of all employment in 1980. Though small, the high-tech manufacturing sector in California is relatively fast-growing. Since it does employ more highly skilled workers, the influence of this growth will be to raise skill requirements for workers in California.

In sum, most jobs in the foreseeable future will not be in high-tech occupations or industries. Nor will most newly created jobs. But the manufacture of high-tech equipment does require more workers with high levels of skill. And the diffusion of that equipment throughout the economy will require that all workers learn new skills and procedures.

"SOCIOTECHNICAL" WORKPLACES

The most thorough analysis of work and learning in high-tech workplaces has recently been made by Larry Hirschhorn. Contrary to common notions and some previous research, Hirschhorn explains why no production process can be entirely automated. "Robots can't run factories". 16/ He describes the historical development of cybernetic technology, which uses low-energy sensors and electronics to automate production. In such automated processes, human hands do not manipulate materials, but human senses and intelligence are needed to pay attention and intervene when things go wrong.

Things do go wrong. Moreover, they go wrong in unanticipated ways. Hirschhorn uses the near meltdown of the nuclear reactor at Three Mile Island in 1979 as a detailed example of what he calls "second-order failure." The

errors engineers anticipate are first-order; cybernetic controls can deal with these. But if the failure is of an unanticipated or second-order kind, the automatic sensors and controls themselves may malfunction. Operators then have to improvise. Three Mile Island is one notorious example. Another, more recent and tragic, was the release of methyl isocyanate from the Union Carbide plant in Bhopal, India, in 1984.

Second-order failures are not unusual -- though, fortunately, most are not so tragic or dangerous that they become public news. Hirschhorn argues that such failures are, in fact, inevitable, and when they occur, people have to learn. Since failure is sometimes dangerous and always costly, they have to learn fast. But these technologies also require people to keep learning even when systems do not actually break down. Operators have to keep tuning the system to keep it operating efficiently, for running a plant at less than capacity is also costly. Unlike the assembly line, however, what constrains the pace of continuous-process production is not how fast workers move, but how fast they learn. Learning becomes an integral part of work.

EMPLOYEE INVOLVEMENT

One characteristic of employment in some high-tech manufacturing concerns is that workers are actively involved in solving problems. According to Reich,

> Flexible systems can adapt quickly only if information is widely shared and diffused within them. There is no hierarchy to problem solving: Solutions may come from anyone, anywhere. In flexible-system enterprises nearly everyone in the production process is responsible for recognizing problems and finding solutions. 17/

Flexibility and employee involvement are easier to achieve in workplaces that are relatively small. There is evidence that, in fact, U.S. manufacturers are reducing average plant size. Business Week reported that the average plant built before 1970 and still operating in 1979 employed 644 people, compared to 241 people in the average plant opened between 1970 and 1979. Business Week estimates that the average plant opening in the 1980's will employ 210 people. Smaller factories enable hourly employees to become "part of the flow of ideas," have "an impact on day-to-day operations," and feel "a sense of ownership." 18/

Employee involvement is not limited to small establishments. In Fremont, California, at the New United Motor Manufacturing, Inc. (NUMMI) automobile plant (a joint venture of General Motors and Toyota), assembly line workers will operate in small groups that "divide up the task as they see fit". 19/ Selection and orientation of workers emphasizes group participation in problem solving. Workers have already been involved in designing their own production areas.

Employee involvement is also becoming a more common practice in one form or another at many other companies, not only in manufacturing, but also in finance, trade, government, and other parts of the service sector. 20/

As more firms discover the benefits of employee involvement, others will follow, so the trend is likely to continue. It will contribute to the increasing demand for employees who can learn new skills, work with other people, and conceive new ideas.

GENERAL EDUCATION VERSUS SPECIFIC TRAINING

Production and diffusion of high-tech equipment, flexible-system manufacturing and employee involvement all increase the demand for workers who can learn fast. They need the "core competencies" listed by the NAS panel, and more. As Marc Tucker put it, they must be

> broadly enough educated to move easily from challenge to challenge, from one area of expertise to another. We need a labor force that is creative, knowledgeable, and flexible. 21/

However, there is a strong temptation to focus vocational education and training on narrow specialties and even particular jobs that happen to be open at the time -- instead of building the general skills, knowledge and competence required for continued learning. As chapter VI discussed, the Federal Job Training Partnership Act (JTPA) and the California Employment Training Panel (ETP) currently place major emphasis on achieving high job placement rates for trainees. Vocational programs in schools and colleges are also providing more "customized" training -- tailored to employers' particular specifications -- in an effort to increase placement rates.

The temptation to focus on specific training for particular job openings is strong because it seems to make such good sense. As Norton Grubb puts it, specific training apparently offers something for everyone: employers looking for trained workers, students looking for jobs, and schools looking for students. 22/ 23/

If training becomes too specific, however, it fails to provide the general skills required for continued learning. That is why the NAS panel warned against spending too much time (in high school) teaching "specific vocational skills." While "naturally desirable," these skills cannot "substitute for the

core competencies." 24/ The danger is that trainees lacking general skills will not be able to keep learning. Unable to improvise or innovate, they may not be fully productive or win promotions. If their jobs change or disappear, they may find themselves looking for work again.

Many students feel they must run these risks. Young students often want a quick ticket to a specific job. They resist spending time on reading, writing, and speaking; mathematics, physical science, and citizenship; and developing general competence in teamwork and problem-solving. Older students returning to school in order to update skills needed in their current jobs, or train for new kinds of work, are also likely to be impatient. With only part of their working lives ahead of them, they will want to accumulate funds for retirement. Many will have mortgages to pay and families to support. They will want to minimize the time spent in mid-career training. 25/ 26/

Specific or customized training aims to fill particular job openings. These programs provide a convenient mechanism for employers to find workers, but whether the actual gain in total output exceeds the cost of the programs is not known. 27/ Moreover, even if training programs achieve high placement rates, it is entirely possible that they have no effect on the composition of workers in different occupations, or the unemployment rate of any group or of the whole labor force. They could simply place some individuals in jobs with the result that other individuals become or remain unemployed. The total number of people unemployed, and total output, may not change.

Employment preparation that focuses solely on specific job skills and short-term placement does not build the kind of general competencies described by the NAS panel and others. Yet there is considerable evidence that such

competencies are necessary for continued learning on the job and for continued productivity as conditions change. Individuals who receive this kind of education may not always find jobs as quickly as will graduates from customized training programs, but once they find jobs they are less likely to become unemployed and to need more publicly supported training later.

A recent study for the Carnegie Foundation for the Advancement of Teaching has found that American corporations spend a great deal of their own money to provide general education for their employees. Corporations were estimated to be spending about $40 billion a year -- not counting employees' salaries -- to educate their workers. The study found that "a key reason corporations are spending so much ... is that traditional schools ... too often produced workers lacking basic communication and problem-solving skills." 28/

SUMMARY

This chapter has presented the following findings:

- Workers in the future will need to have a high level of general competence, including the ability to learn, to solve problems, and to adapt to changing working conditions.
- Most jobs in the future will not be in high-tech occupations, but those that are will require new skills, as will the diffusion of high-tech equipment throughout the economy.
- The maintenance of automated manufacturing processes will require workers who are able to learn continuously in order to cope with potentially costly or dangerous unexpected failures of automatic machinery.

- Growing employee involvement in decisionmaking will increase the demand for employees who can learn new skills, work with other people, and conceive new ideas.
- Much of the current publicly supported effort in vocational programs focuses on specific vocational skills or training tailored to particular jobs. These programs usually fail to build the general competencies that will be required for job security and advancement in the future.

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19/ San Francisco Examiner, December 16, 1984, p. D2.

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23/ Norton W. Grubb, "Responding to the Constancy of Change: New Technological and Future Demands on U.S. Education." Preliminary version of paper presented at the U.S-Australia Joint Seminar on the Future Impact of Technology on Work and Education, Melbourne, September 1984.

24/ National Academy of Sciences, op. cit., p. 19.

25/ Before 2010, when the baby-boom generation begins to retire, its members will be moving through the middle and late parts of their working careers. Many will be returning to school for additional education and training.

26/ One rapidly growing group that currently spends relatively little time in school is young Hispanics. Projections for California in the year 2000 show that Hispanics will comprise 31 to 35 percent of the population younger than 15, and 25 to 28 percent of the population aged 15 to 64, but only 12 percent of the population 65 or older, as shown in a study by David Stern, Projections of Hispanic Population for California, 1985-2000. (Palo Alto, CA: Center for Continuing Study of the California Economy, 1982, p. 18.) As a group, Hispanics currently end their formal schooling at younger ages than do other major ethnic groups. For

instance, in California approximately one out of four Hispanic students who were high school sophomores in 1980 dropped out of high school by 1982, compared with a dropout rate of one out of six for non-Hispanic whites. (See David Stern, James Catterall, Charlotte Alhadeff, and Maureen Ash, "High School Dropouts in California." Berkeley, CA: School of Education, University of California, forthcoming.) And a national survey in 1976 found that 40 percent of Hispanic dropouts had left even before they reached the grade of sophomore in high school. (See Marsha Hirano-Nakanishi. "Hispanic School Dropouts: The Extent and Relevance of Pre-High School Attrition and Delayed Education." Los Alamitos, CA: National Center for Bilingual Research, No. R-17, n.d.)

27/ Martin Neil Baily and James Tobin, "Inflation-Unemployment Consequences of Job Creation Policies." In John L. Palmer, (ed.). Creating Jobs: Public Employment Programs and Wage Subsidies. Washington, D.C.: Brookings, 1978.

28/ "Firms Spend Billions to Educate Help," New York Times, January 28, 1985, Part IV, p. 3.

VIII. REMEDIAL EDUCATION

INTRODUCTION

There is little systematic knowledge about the outcomes of remedial education in California's community colleges; statewide data are for the most part either incomplete or nonexistent. Some description and assessment of remedial education is nevertheless possible, and this chapter uses available state sources, supplemented by our fieldwork and interviews, to review these programs. How is remedial education defined, and what is its focus? Who provides remedial services to adults, other than the community colleges? How many students need and take advantage of remedial assistance, and what are the characteristics of these students? What kinds of remedial services are provided, and how effective are they? These questions are taken up below.

FOCUS OF REMEDIAL EDUCATION

Remedial courses have been provided for many years by public and private four-year colleges and universities, and by junior and community colleges, in California and throughout the nation. In the context of the community colleges, "remedial education" refers to the process of preparing students for college-level work. The basic process includes skill development in the academic areas of reading, writing, and mathematics; a broader approach also includes work in "support" areas such as study skills, note-taking, test-taking, time management, and the development of academic self-confidence.

While there is some agreement on the function of remedial activities, there is disagreement within the national postsecondary community on the definition of "college-level work," with individual public and private

colleges using different standards to define their skill level requirements for entering freshman. In California, the UC and CSU systems have each developed standardized skill requirements, linked to procedures for assessing the writing and mathematics skills of entering freshmen. The community college system does not have such a standardized entry assessment system.

Wide variation among the community colleges in the definition of "college-level" work is accompanied by equally great variation in the definition of what constitutes a remedial course. For example, spelling and basic arithmetic are clearly not considered college-level work, but geometry, elementary algebra, and certain levels of composition classes are considered remedial by some colleges and college-level by others. Thus, current definitions of remedial work in the community colleges embrace a wide range of skill levels: in writing, from courses that focus on elementary grammar and spelling, to courses immediately below the technical and analytical skills required for English 1A (the UC beginning composition course); in mathematics, courses in arithmetic, introductory algebra, geometry, intermediate algebra, or trigonometry; in reading, courses that focus on reading skills below the 13th or 12th grade level; in English as a Second Language (ESL) programs, courses that focus on elementary or intermediate speaking, writing, or reading skills (though there is resistance to classifying ESL as "remedial" since it can be argued that the non-native student is learning new skills and not relearning skills or overcoming deficiencies).

Differences in the skill levels defined as remedial and college-level in the community colleges are the result of several influences:

- o High school graduation requirements have changed over the last twenty years, and it is no longer possible to assume that a high school diploma can be equated with a certain level of reading, writing, and mathematics skills.
- o Community college personnel are often reluctant to label students or courses as "remedial" because of the negative, deficient image often suggested by the term.
- o There has been some concern that classifying courses as remedial could isolate those courses into a special category that would be vulnerable to budget reductions.
- o Individual colleges develop programs and courses at the local level, and the definition of remedial work can vary even among individual colleges within a multi-campus district.

In sum, there is widespread disagreement among the community colleges as to the appropriate definition and scope of remedial work.

REMEDIAL EDUCATION PROVIDERS

Remedial education for adults is provided in California both by community colleges and by the K-12 adult education system. 1/ Both community colleges and K-12 school districts can receive approval to offer noncredit classes in ten instructional areas; of these, only basic skills and ESL classes can be treated as remedial (in the sense of preparing students for college-level work).

Responsibility for providing noncredit adult education may rest exclusively with a community college district or with a high school or K-12

district, or it may be shared by a local high school or K-12 district and a community college district.

Noncredit instruction in Spring 1984 represented about 8 percent of the total instructional workload of the community college system, and about 12 percent of total college enrollments. 2/ There are no data showing what proportion of those noncredit enrollments was in basic skills and ESL areas.

Funding for K-12 adult education programs was reduced significantly following the passage of Proposition 13 in 1978, and state-imposed limitations on enrollment growth have been in effect since 1980. 3/ Because of this growth limitation, many basic skills and ESL classes have long waiting lists, and in the last four years many adult schools have had to turn away students, or have over-enrolled students in available sections. 4/

COOPERATION AMONG PROVIDERS

UC and CSU campuses often refer students to local community colleges for pre-admission courses, or courses that can be taken concurrently with university enrollment, to build writing and mathematics skills up to university requirements.

Many community colleges and K-12 adult schools have developed agreements in which the responsibility for certain courses (e.g., ESL) or levels of courses (e.g., below or above a certain grade level) has been delegated either to the local college or to the adult school program. The enrollment cap on the growth of adult school programs has probably led to an increase in the number of students that adult schools refer to community colleges for remedial assistance, particularly in ESL, but no data have been collected in this area.

The governing board of the CSU system has recently approved a resolution that would significantly decrease remedial activities in English and mathematics on CSU campuses, 5/ and the referral and concurrent enrollment agreements currently in effect between CSU and local community colleges could become closer and more formalized. Increased remedial activity in the K-12 adult schools would require a substantial investment of new funds beyond those that have accompanied educational reforms at the elementary and secondary levels.

SCOPE OF COMMUNITY COLLEGE PROGRAMS

Virtually every community college in California now offers remedial courses and services to students who are not ready for college-level work. The 1979 report of the Community College Basic Skills Commission noted that 98 percent of California's community colleges offered remedial reading courses for students whose skills were between the 7th and 11th grade levels. 6/ Each of the 33 colleges in our fieldwork sample offered remedial programs. 7/

NEED FOR REMEDIAL SERVICES

On the basis of available data, it would appear that at least 60 percent of the community college students who enroll for six or more units per term are not ready for college-level work in at least one and probably several academic areas. A 1980-81 survey of reading scores conducted by the California Postsecondary Education Commission (CPEC), and responded to by 60 community colleges, indicated that 15 percent of the students tested read

below 6th grade level; nearly 33 percent read in the 6th to 9th grade range; about 25 percent scored at the 10th and 11th grades; and 27 percent read at or above the 12th grade level. 8/ Data collected from colleges in the Learning Assessment, Retention Consortium (LARC) in 1983 show that in 22 out of 37 colleges, over 50 percent of the students tested needed remedial assistance in reading. 9/

The evidence from our site interviews at 32 campuses suggests that these general findings conceal significant variation among colleges serving different kinds of communities, and that the remedial needs of some students -- particularly those in large urban colleges -- are significantly greater than average. 10/

SIZE OF THE REMEDIAL EFFORT

Table VIII-1 presents data on the volume of remedial course and enrollment activity from the 1978-81 CPEC survey. 11/

These data show that about half of all English and mathematics sections taught in 1981 were classified as remedial. While the estimated number of students involved in ESL activities in 1980-81 was small compared to the number of students involved in remedial reading, writing, and mathematics, our interview respondents have reported rapid growth in ESL enrollments and sections through 1984. 12/

Recent LARC data suggest that increases in the number of sections and enrollments in remedial activities in all four subject areas shown in Table VIII-1 continued through 1982-83. Table VIII-2 shows the percentage of change in remedial enrollments at some 14-22 colleges in the LARC consortium. 13/

Table VIII-1

PERCENTAGE OF SECTIONS AND ENROLLMENTS
IN REMEDIAL COURSES IN 1980-81

Remedial Sections	Percentage of Total Sections and Enrollments	Estimated Number of Students	Percent Increase in Enrollment 1978-79 - 1980-81
Reading and Writing	46% of all English sections 45% of all English enrollmts	212,000*	13.3%
Mathematics	54% of all math sections 57% of all math enrollmts	201,000*	17.1
ESL	section and enrollment percentages unavailable	59,000	74.5

*Some students enrolled in reading and writing courses may also be enrolled in mathematics courses.

Source: California Postsecondary Education Commission, Promises to Keep, Commission Report 83-2. Sacramento, CA: January 1983, pp. 80-90.

Table VIII-2

PERCENTAGE CHANGE IN REMEDIAL ENROLLMENTS
IN SELECTED LARC COLLEGES
1981-1983

	Fall '81 - Fall '82	Number of Colleges	Fall '82 - Fall '83	Number of Colleges
Reading	14.7%	22	4.0%	18
Writing	6.4	22	-.03	20
Math	-0.7	22	0.1	20
ESL	15.0	22	6.0	14

Source: LARC, 1983-84 Program Guide, Part I (draft). Sacramento, CA: n.d.

Note: These are different but partially overlapping groups: Colleges reporting data for 1982-83 were not necessarily among those reporting for 1981-82.

The 1983 CPEC report estimates that remedial instruction expenditures from 1978-79 - 1980-81 accounted in each year for about five percent of the total institutional budget of the community colleges. 14/ Staff in the Chancellor's office have recently made a similar estimate. 15/ At the same time, our own interviews with staff at a wide range of colleges suggest that these estimates may be low. 16/ Whatever the statewide estimate, however, it is clear that the amount of remedial activity varies widely from college to college, and on some campuses is a relatively high proportion of the total instructional effort. 17/

Possible Reasons for Growth of Remedial Programs

The data discussed above, and our own impressions from fieldwork and other interviews, suggest that the number of students enrolled in remedial courses has been increasing over at least the last five years. What factors might account for this increase? Our interviews have identified a number of possible influences:

- The community colleges are expanding their student assessment programs;
- High school standards have declined;
- The cap on K-12 adult school has caused some students to turn to community colleges;
- The public four-year institutions have been enrolling a growing proportion of students directly from high school, while the proportion of high school students attending community colleges has remained stable. 18/ The community colleges may therefore be enrolling a larger proportion of underprepared students (see Chapter V);
- Adults in their 20's and 30's who failed to acquire basic skills in the K-12 system may be turning to the community

colleges for the skills they need to survive in an increasingly technical and service-oriented labor market.

If these factors have played some role in the growth of remedial education, that growth may continue:

- Community college assessment programs are expanding (and a statewide "matriculation model" is now being considered);
- Efforts to strengthen K-12 education may proceed for many years before significant changes are accomplished;
- K-12 funding will probably focus on the elementary and secondary levels, rather than on adult education programs;
- Over the next decade, the highest population increases will be among minority students who historically have had the lowest achievement;
- The immigrant population will probably continue to grow;
- Adults with poor basic skills will continue to seek help from community and adult education programs as the literacy demands of the occupational world grow (see Chapter VII).

TYPES OF SERVICES PROVIDED

The community colleges offer remedial services in both academic and learning support areas. "Academic" services generally include group and individualized instruction in writing, reading, mathematics, and ESL. "Learning support" services include instruction and tutoring in skills related to academic success (e.g., test-taking, note-taking, study skills, time management), as well as academic, personal, and occupational counseling.

Most remedial services are offered in academic instruction areas, generally in the form of courses offered by specific English, Language Arts, and Mathematics departments. Over 80 percent of the remedial courses in 1981-82 were offered by academic departments. 19/ We estimate from our fieldwork visits that academic departments continue to provide the majority of

remedial instruction, but that Learning Assistance Centers and other departments are becoming more involved, possibly because of an increase in interdisciplinary and vocationally-oriented approaches to instruction in basic skills.

The data also indicate a strong pattern of awarding degree or certificate credit for remedial courses. According to many of our respondents, earning college credit gives students a feeling of accomplishment and progress that contribute to more positive self-images and increased self confidence; and enrollment in a certain number of credit courses is one of the usual eligibility requirements for student financial aid programs. 20/

EVALUATING REMEDIAL PROGRAMS

The complexity of the evaluation issue in remedial education is related to several philosophical and contextual factors: wariness among educators concerning the reliability and validity of tests scores; a general preference for focusing on teaching and learning rather than on testing; lack of coordination and consistency in evaluation procedures because remedial functions may be shared by several different academic departments and instructional units; and overall lack of comparability between colleges because different colleges and units within each college have preferences for different specific assessment procedures and instruments.

Evaluation of remedial courses and services in California community colleges has been influenced by each of these factors; consequently, overall evaluation data are unavailable.

In a recent survey by the Community College Ad-Hoc Committee on the Evaluation of Remedial Programs, 62 percent of the 52 responding colleges reported conducting routine or special evaluation studies of their remedial courses and programs in reading, writing, and mathematics. 21/ The major form of evaluation used was pre- and post-testing of students' skill levels, but colleges also studied the validity and reliability of the assessment process for placement in remedial courses.

Personnel at the colleges we visited asserted that, on the whole, their assessment/placement procedures and their remedial programs were effective in improving the academic skills of students. However, the lack of comparable, consistent evaluation practices and procedures makes it impossible to judge the effectiveness of the courses and programs in general or their effectiveness in terms of specific kinds of students or instructional practices.

According to reports from LARC colleges, more campuses each year appear to be moving toward assessing students for placement purposes prior to student enrollment in certain college courses and programs. 22/

SUMMARY

This chapter has presented the following findings:

- There is widespread disagreement among community colleges as to the appropriate scope and definition of remedial work, and no standardized skill requirements for entering students.

- At least 60 percent of community college students who enroll for six or more units per term are not ready for college-level work in at least one academic area.
- There is considerable variation in the extent of remedial courses offered. The remedial needs of some students -- particularly in large urban colleges -- are much greater than average.
- About half of all English and mathematics classes in 1981 were classified as remedial; these enrollments have been growing.
- The increase in remedial enrollments may be due to expanded assessment programs, declining high school standards, a cap on the growth of K-12 adult school programs, a larger proportion of under-prepared high school students attending the community colleges, and growing numbers of returning adults seeking basic skills training.
- Most remedial courses are offered by academic departments, for credit.
- Community college personnel believe that most remedial programs are effective; however, the lack of consistent or comparable evaluations makes it impossible to obtain solid measures of effectiveness.

NOTES TO CHAPTER VIII

1/ Remedial courses for college and university students are provided by those four-year institutions, and are not discussed here.

2/ Percentages are based on an initial analysis of Spring 1984 noncredit activity. Dr. Charles McIntyre, Director of Analytical Studies, Chancellor's Office, California Community Colleges, Sacramento, February 21, 1985, personal communication.

3/ Section 42238 of the California Education Code, effective June 1, 1980, established an annual block entitlement for adult education activities in ten specific instructional areas, and also established funding formulas that include a six percent cost-of-living increase and a 2-1/2 percent annual enrollment growth limitation.

4/ Based on analysis of adult basic education data (1982-84) and conversations with Adult Education personnel in the State Department of Education.

5/ San Francisco Chronicle, "State College Remedial Classes Ending." January 24, 1985.

6/ California Postsecondary Education Commission (CPEC), Promises to Keep: Remedial Education in California's Public Colleges and Universities, Commission Report 83-2. Sacramento, CA: California Postsecondary Education Commission, January 1983, p. 78.

7/ See Appendix A, "Study Methods," for a description of the fieldwork sample.

8/ CPEC, op. cit., p. 77.

9/ Learning, Assessment, Retention Consortium (LARC), 1983-84 Program Guide, Part I. (draft) Sacramento, CA: n.d. LARC originated in 1981 with 14 Northern California community colleges. The Consortium now includes 70 colleges divided into five regional groups. A sixth regional group is now organizing in the Los Angeles area. LARC includes both large and small colleges located in urban, suburban and rural communities. Colleges in the Peralta (Oakland), San Francisco and Los Angeles districts are not currently active. The Consortium members share information on assessment strategies and instruments, develop and disseminate a data base on assessment activities, and sponsor workshops on these topics.

10/ An instructor interviewed for the 1983 CPEC report noted that the average high school graduate who entered an inner city community college read at the 5th or 6th grade level, and was accompanied by others who were at 1st or 2d grade reading levels. CPEC, op. cit., p. 78.

11/ The CPEC report notes that data reported for remedial mathematics activity may understate student need and indicate only the minimum dimensions of the problem, due to inconsistencies among the reporting campuses in the definition of remedial mathematics.

12/ Statewide estimates on the amount of 1983-84 ESL course and section activity that could be considered remedial are not available.

13/ These figures may underestimate remedial enrollments because they do not include enrollment in the major urban districts of San Francisco, Peralta (Oakland), and Los Angeles.

14/ Including costs for non-instructional support services.

15/ Interview with Dr. John Meyer, Specialist, Program Planning and Development Unit, Chancellor's Office, California Community Colleges.

16/ The study was not in a position to collect hard data on this question, and a more definitive estimate may have to await the outcome of current efforts by state and local college officials to resolve current issues of definition and course categorization.

17/ There are no statewide data that describe the characteristics of students involved in remedial activities in community colleges. Some individual colleges have collected information about age, sex, educational/career goals, socio-economic status, and part- or full-time status, but it is not possible to report any reliable statewide figures on these characteristics. Most students in remedial courses are enrolled primarily because of diagnostic testing for courses with skill prerequisites (e.g., composition, mathematics, science courses) or as a result of college-wide testing of students who enroll for six units or more of credit. On the basis of this information and our field interviews, we believe that the majority of students enrolled in remedial classes are likely to be:

- Taking more than six units per semester, which would not include "transient" students who take only one or two courses per term for personal and/or vocational development;
- Interested in or enrolled in courses or programs that will lead to a specific degree or certificate for transfer, training, or retraining, with the possible exception of some ESL students;
- Within a conventional age range for college students (18-27 years old), again with the possible exception of some ESL students;
- Receiving or eligible for financial aid programs;

- Representative of the ethnic makeup of the community served by the college.

18/ Admissions from high school to UC have gone up despite a decline in both the number of high school graduates and the number who were eligible for admission. See: California Postsecondary Education Commission, Eligibility of California's 1983 High School Graduates for Admission to the State's Public Universities. Sacramento, CA: April 1985.

19/ CPEC, Promises to Keep, op. cit., pp. 78-89.

20/ It is also the case that credit classes generate more revenue for a college than noncredit classes.

21/ California Community Colleges, Ad Hoc Committee on Evaluation of Remedial Programs, "The Evaluation of Remedial Programs, Courses and Services in California Community Colleges." Sacramento, CA: California Community Colleges, Office of the Chancellor, 1984, p. 7.

22/ LARC, op. cit., pp. 9-11.

IX. FACULTY

INTRODUCTION

High-quality community college programs require a knowledgeable and professional teaching force, and a system for assigning and supporting teachers that makes the most efficient use of their talents. This chapter describes various characteristics of the teaching staff, and presents our findings on faculty salaries, credentialing, personnel management, staff evaluation and professional development, and overall staff quality.

FACULTY CHARACTERISTICS

AGE AND YEARS OF SERVICE

In 1983-84, almost 40 percent of the full-time community college faculty were over fifty years of age. 1/ Available data also indicate that full-time faculty are "greying" -- there has been a decline in full-time faculty members age 34 or under, and over age 60, while those who are 35 to 54 years of age are increasing in numbers. The largest increase is among those who are relatively close to early retirement -- ages 50 to 54. 2/ Our panel pointed out that while some older full-time faculty are or soon will be retiring, little is currently being done to prepare and induct new qualified personnel.

In 1981, more than half of the full-time faculty -- compared to 19 percent of the part-time faculty -- reported being employed in the same district for more than ten years. Twenty-four percent of the part-time faculty reported no prior experience in their present district of employment. 3/

Members of several different panels told us that staff burnout was a growing problem among full-time faculty, though not one that presently threatens the integrity of the overall instructional program. The data on years of service are consistent with the concern that faculty burnout may be increasing.

EDUCATIONAL BACKGROUND AND EXPERIENCE

Except for certain professional degrees, full-time faculty tend to be more highly educated than part-time faculty. In 1981, for example, 84.8 percent of full-time faculty members reported holding master's degrees, as compared to 51.6 percent of the part-time faculty. 4/

More full-time than part-time faculty also reported prior work experience in instructional jobs, and more experience at the elementary and secondary level (47.4 percent vs. 34.3 percent). More part-time than full-time faculty reported prior work experience in non-instructional jobs. 5/

CONCURRENT EMPLOYMENT

About 40 percent of the full-time faculty and 88 percent of the part-time faculty reported concurrently holding other paid employment in 1981. About three of every five part-time instructors had another full-time job. At the same time, about 6 percent of the full-time faculty -- almost 1,000 instructors -- concurrently held another full-time job. About one-third of these other full-time jobs were of an instructional nature. 6/

STAFFING PATTERNS

In 1983-84, there were 39,082 faculty members in the California community colleges -- 16,235 full-time and 22,847 part-time. The number of full-time faculty has remained relatively stable, whereas the employment of part-time instructors has more closely followed budget changes, particularly over the last several years. Nearly all (9 out of 10) of those faculty laid off since 1977 have been part-time. 7/

Not surprisingly, there has been a steady increase in the proportion of full-time faculty, from 31 percent in 1977-78 to 41.5 percent in 1983-84. 8/ These statewide averages, however, mask a great deal of variation across districts and colleges.

In 1981, AB 1626 required that the proportion of contact hours taught by part-time faculty not be increased above the 1980-81 level during the 1981-82 and 1982-83 school years. Subsequent legislation has extended this through the 1986-87 school year.

WORKLOAD

In the community colleges, teaching workload is defined in terms of weekly faculty contact hours (WFCH), representing the number of hours per week than an instructor is actually in the classroom teaching. Although full-time faculty accounted for about 42 percent of all instructors in 1983-84, they carried 62.6 percent of the regular instructional workload. When overload assignments are included, this figure becomes 68.8 percent.

In 1983-84, the average full-time faculty member devoted 16.2 hours per week to classroom teaching. When overload assignments are included, the

average increases to 20.8 hours. On the other hand, part-time instructors averaged 5.3 weekly contact hours. (A part-time faculty member is usually someone who works no more than nine weekly contact hours.) There was substantial variation in average weekly contact hours across the state. For example, averages by district for full-time instructors show a high of 22 hours per week and a low of 12.1 hours per week. 9/ Similarly, for part-time faculty the district averages ranged from a low of 3 hours to a high of 9.9 hours.

To summarize these workload patterns: Of every ten faculty employed in the fall of 1983, approximately --

-- 3 taught a regular assignment averaging 16 hours per week;

-- 1 taught a regular assignment plus overload, for a total of 21 hours;

-- 6 taught a part-time assignment averaging 5 hours per week.

ADDITIONAL REQUIRED ACIVITIES

In addition to actual teaching time as represented by weekly faculty contact hours, instructors spend time in preparation for classes, test grading, and other teaching-related activities.

The majority of full-time faculty, but only 2.4 percent of the part-time faculty, are required to have office hours. Additional weekly hours required on campus (beyond teaching time and office hours) include such activities as committee meetings, staff meetings, and course and program development. Slightly more than 40 percent of the full-time faculty, but virtually no part-time faculty, have additional required hours on campus. 10/

These findings on the additional activities of community college faculty are consistent with the argument presented by several panelists that a "critical mass" of full-time faculty is necessary to provide the support activities (e.g., advisement, academic planning, curriculum development), and instruction that help to insure high quality programs over time.

FACULTY SALARIES

In contrast to the University of California and California State University, there is no statewide salary schedule for faculty in the California community colleges, and faculty are paid on schedules that vary widely from district to district. Instead of the professorial ranks (professor, associate professor, etc.) and step salary schedule common to the other segments of postsecondary education, community college salary schedules are based on the same compensation principles as those used in the elementary and secondary schools.

In general, payment schedules depend on level of education and number of years of academic service within the district. In most districts, some credit for relevant occupational experience and training is substituted for academic degrees. Placement on the salary schedule and subsequent salary increases are generally determined by a combination of years of service and academic credit. A typical community college salary schedule along with recent salary schedules for faculty at UC and CSU is shown in Table IX-1.

While the community college salary schedule shown in Table IX-1 is reasonably representative of the population (the statewide average in 1982-83 was $31,849 and for this district $32,073), salaries in other districts vary

Table IX-1

FACULTY SALARY SCHEDULES FOR THE UNIVERSITY OF CALIFORNIA, THE CALIFORNIA STATE UNIVERSITY, AND A COMMUNITY COLLEGE DISTRICT, 1982-83

Rank and Step	University of California	California State University	Community College District						
			Step	Class I*	Class II	Class III	Class IV	Class V	Class VI**
Professor									
1	30,100	30,276	1	18,155	18,625	20,036	21,602	23,168	23,768
2	33,200	31,728	2	19,161	19,653	21,130	22,745	24,359	24,959
3	36,800	33,252	3	20,166	20,681	22,225	23,887	25,550	26,150
4	40,200	34,860	4	21,172	21,709	23,320	25,030	26,741	27,341
5	43,600	36,540	5	22,178	22,737	24,414	26,173	27,932	28,532
6	47,100	—	6	23,183	23,765	25,509	27,316	29,123	29,723
7	51,500	—	7	24,189	24,793	26,604	28,459	30,314	30,914
Associate Professor			8	25,195	25,821	27,698	29,602	31,505	32,105
1	24,600	23,976	9	26,200	26,849	28,793	30,745	32,696	33,296
2	26,000	25,116	10	27,206	27,876	29,888	31,888	33,887	34,487
3	27,600	26,316	11	—	—	30,982	33,030	35,079	35,679
4	30,000	27,576	12	—	—	32,077	34,173	36,270	36,870
5	33,100	28,884	13						
Assistant Professor			14						
1	19,700	19,044	15						
2	20,500	19,932	16	Professional Growth Increment***			34,873	36,970	37,570
3	21,700	20,868	17						
4	23,100	21,852	18						
5	24,500	22,896	19						
6	25,900	—	20	Professional Growth Increment***				37,670	38,270
Instructor									
1	16,800	17,412							
2	—	18,192							
3	—	19,044							
4	—	19,932							
5	—	20,868							

*Qualifications for classifications: I = AB or less; II = AB +30 units, III = MA; IV = MA + 20 units or AB + 55 units with MA; V = MA + 40 units or AB + 75 units with MA; VI = Doctorate

**The holder of an earned doctorate shall receive $600 annually in addition to his placement on the appropriate step in Class V.

***Class IV, V, and Doctorate -- Professional Growth increment of $700 at the 16th step with ten years of service at SRJC and 15 approved growth units earned after Step 12 placement; Class V and Doctorate -- Professional Growth investment of $700 with a minimum of four years service after the 16th step placement and 15 additional approved growth units earned; Credits utilized to attain Professional Growth increments may not be used for class advancement.

Source: California Postsecondary Education Commission, Faculty Salaries in the California Community Colleges, 1982-83 Academic Year, Commission Report 83-27. Sacramento, CA: June 1983.

substantially -- not only with respect to the highest and lowest salary steps, but with respect to the number and spread between steps, as well as in the qualifications required to achieve them. Typically, community college salary schedules include 12 to 15 salary steps within 4 to 8 classes based on academic degrees and credits, although the example provided illustrates that there is considerable variation.

The statewide average salary for full-time faculty in 1983-84 was $32,704 (a 2.7 percent increase over the previous year). However, the difference in average salary between the highest and lowest paying district was fairly substantial -- 37.2 percent, or $10,505. Although most of the highest paying districts are located in suburban communities and most of the lowest paying districts are in rural areas, the salary level is not usually determined by the local cost of living index for that area. More often, it depends on union negotiations and/or the financial condition of the district.

Data from our fieldwork and panels indicate that differences in salary schedules, and the practice of limiting the starting salary of a new employee or not accepting all of the employee's years of service in another district, have resulted in reduced incentives for faculty to move between districts.

The community colleges' 22,847 part-time faculty were compensated in 1983-84 at an average rate of $22.41 per hour. The California Postsecondary Education Commission (CPEC) estimates that this averaged about 38 percent of the cost of instruction by full-time faculty. Hourly rates varied significantly across districts -- from a low of $12.75 to a high of $29.10. 11/

Table IX-2 shows salaries of classroom instructors from 1973-74 through 1982-83. These data include all salaries paid to both full- and part-time

Table IX-2

SALARIES OF CLASSROOM INSTRUCTORS
1973-74 - 1982-83

Year	Total Salaries	Attendance ADA	Salaries Per ADA	
			Current Dollars	1973-74 Dollars
1973-74	$297,889,678	609,432	$489	$489
1974-75	395,002,796	694,096	569	531
1975-76	467,952,150	768,902	609	530
1976-77	523,919,671	736,702	711	586
1977-78	576,167,938	734,915	784	605
1978-79	572,846,758	658,716	870	614
1979-80	644,591,830	688,591	936	583
1981-81	732,661,962	752,490	974	544
1981-82	788,999,689	776,274	1016	522
1982-83	794,412,168	751,067	1058	521

Source: California Community Colleges, Board of Governors, California Community Colleges Fiscal Data Abstract. Sacramento, CA: 1975-76 - 1982-83.

instructors and instructor aides. While inflation-adjusted salaries per ADA are higher than in 1973-74, they are down from the peak of $614 in 1978-79.

Table IX-3 shows that the average salary of full-time community college faculty are competitive with California State University (CSU) faculty salaries, and are about 20 percent below University of California (UC) faculty salaries. However, the data for community college faculty include salaries for those working 12 as well as 9 months and also include additional stipends for faculty who carry added responsibilities; about 7.5 percent of all full-time community faculty received stipends averaging $1,293 in 1983-84. There are no published data that would allow an analysis of the effect of the mix of full- and part-time faculty on overall salaries, nor are there data showing the effects of faculty age and years of experience on salary levels throughout the state.

CREDENTIALS AND CREDENTIALING

Every instructional or student services employee of the community colleges must obtain a credential. In order to teach a credit class, an employee must obtain a subject matter credential in one of 76 subject areas. To teach related but different subjects, a credential for each subject area must be obtained. Additional credentials may be obtained at any time during a faculty member's employment.

The credentialing system serves three primary purposes: 1) verifying academic and occupational experience; 2) insuring that instructors have the necessary knowledge to teach particular subjects; and 3) checking for criminal records and compliance with health standards.

Table IX-3

FULL-TIME FACULTY AVERAGE SALARIES IN CALIFORNIA HIGHER EDUCATION
1975-76 - 1983-84

Year	Average Salaries			Average Salaries in 1975-76 Dollars		
	CSU*	UC*	CC**	CSU*	UC*	CC**
1975-76	19,450	22,018	19,823	19,450	22,018	19,823
1976-77	20,672	23,047	20,838	19,542	21,788	19,699
1977-78	22,055	25,125	22,413	19,530	22,248	19,847
1978-79	22,401	25,337	24,123	18,143	20,521	19,537
1979-80	26,111	29,559	26,270	18,660	21,124	18,774
1980-81	29,012	32,664	28,273	18,607	20,949	18,133
1981-82	30,992	35,002	30,156	18,282	20,648	17,789
1982-83	31,333	35,768	31,849	17,715	20,223	18,109
1983-84	32,652	40,790	32,704	17,666	22,068	17,694
% Change	67.9	85.3	65.0	-8.2	0.2	-10.7

*Nine-month, all ranks average salary

**Nine-month and twelve-month average salary.

Source: California Postsecondary Education Commision, Director's Report. Sacramento, CA: July 1984; _____, Final Annual Report on Faculty and Administrative Salaries in California Public Higher Education, 1983-84. Sacramento, CA: 1984.

In other states, decisions about the qualifications of prospective community college faculty are generally handled at the college or district level, and formal credentials are not required. State agencies often set minimum academic standards and perform records verification tasks.

According to Chancellor's Office staff, requests for credentials have increased over the last five years; most applications have been granted. Although no systematic data are available, panelists and interview respondents have pointed out that part-time and full-time staff commonly hold multiple credentials. Once obtained, credentials need not be renewed.

PERSONNEL MANAGEMENT

TENURE AND JOB RIGHTS

Hiring and job security rights for full-time community college faculty are similar to those for certificated elementary and secondary teachers. Unlike the tenure process at UC and CSU (which spans several years and includes a formal peer review process to determine whether faculty qualify for tenure), full-time community college instructors are on probationary status for their first two years. An evaluation is required at the end of each year, and evaluation criteria and persons responsible for the evaluation vary considerably from district to district. If no action is taken to remove the instructor prior to the end of the two years, the faculty member becomes a permanent (tenured) instructor in the district. After becoming a permanent staff member, the instructor may be dismissed only for a limited number of causes specified in the education code. 12/ Temporary (Part-time) faculty may be

laid off at any time. They do not obtain probationary or permanent status, nor do they have reemployment rights.

LAYOFF PROCEDURES AND REHIRING RIGHTS

Other than dismissal for cause and dismissal during the probationary period, full-time tenured faculty may only be laid off for two reasons:

1. A decline in the average daily attendance in all the district's schools, or
2. A program or course is to be reduced or discontinued.

A faculty member may not be laid off while any other employee with less seniority is retained to teach a course that the more senior faculty member is credentialed and competent to teach. This rule, according to panelists and other informants, can result in the inefficient assignment of personnel. Faculty with little teaching experience in a subject area -- but with a credential in that area, and with seniority -- may replace ("bump") a less senior faculty member who has been teaching a course in that area for some time. Credentials are relatively easy to obtain, and faculty with multiple credentials have numerous opportunities to replace less senior faculty in the event of layoffs.

FACULTY UNIONS AND ACADEMIC SENATES

Full-time faculty and some part-time instructors are subject to the collective bargaining provisions of the Educational Employment Relations Act (The Rodda Act), and may elect to be represented by an exclusive representative in negotiations.

In 1963, Title V of AB 48 provided for the establishment of academic senates in the community colleges. Their purpose is to provide community college faculty with a "formal and effective procedure for participating in the formation of district policies on academic and professional matters..." by enabling them to make recommendations to the college administration and local governing board.

We found that the roles played by faculty unions and academic senates varied widely from campus to campus, with no discernible pattern. In some cases, local unions confined their activities to negotiations on salaries and related matters; in many cases they also played an active role in establishing campus or district standards for the quality of curriculum and instruction. Some academic senates took little active part in decisions affecting campus academic standards; others played a central role in such decisions. Sometimes both the local union and the academic senate were very active in professional and academic areas; at other colleges only one organization was active. In short, the technical distinction between the jurisdictions of the two types of organizations -- collective bargaining on salaries and benefits vs. academic and professional concerns -- has been considerably blurred in practice. This has sometimes created tension between the two groups, which they usually try to resolve either by executing a written agreement delineating their respective functions, or by maintaining liaison between their executive bodies.

EVALUATION, PROFESSIONAL DEVELOPMENT, AND OVERALL QUALITY

Section 87663 of the education code requires that probationary employees must be evaluated at least once each academic year, with tenured faculty evaluated at least every two academic years. The specific procedures for evaluating contract and regular faculty are determined by each district's governing board in consultation with their faculty; the evaluation of part-time faculty is left to the discretion of local districts.

State data indicate that districts have tended to evaluate probationary faculty more often than required, but generally do not evaluate tenured faculty more often than every two years. Procedures for evaluating full-time faculty usually combine a team (usually an administrator and peer) or administrative assessment process with student and/or self evaluations.

Policies on the evaluation of part-time faculty vary widely, and about a third of the districts report no formally defined method or frequency for evaluation of their part-time staff. 13/

Data from our fieldwork tend to support these findings. At most of the colleges we visited, full-time faculty were evaluated more often than part-time faculty; however, the outcomes of these evaluations were more likely to have an impact on part-time faculty -- who could be dismissed at the discretion of college administrators -- than on full-time staff.

Professional development for community college faculty is supported out of the general (ADA-based) state apportionment available to each college. With one recent exception, there are no state-funded programs that set aside additional resources for this purpose. 14/ Our field visits revealed wide

variation among campuses in the use of college funds for professional development, with most college administrators reporting that they have had to make substantial cuts in support for such programs over the last several years, as discretionary resources have been reduced.

We found that most college faculty and administrators consider professional development an essential activity that should have high priority on their campus. A wide variety of such activities still occur, including faculty participation in professional organizations; attendance at courses in their subject fields; or participation in college-sponsored workshops on instructional improvement and program planning. Full-time faculty on virtually all campuses are also entitled to sabbatic leave, which is ordinarily used for professional development purposes. However, most colleges we visited reported that they cannot now afford to support all the sabbatic leaves their faculty are entitled to and have applied for. A further difficulty, according to our respondents, is that professional development accomplished by faculty while on sabbatic is rarely tied to any campus-wide plan that has identified the long-term needs of the college. On the whole, we found that neither sabbatic leaves nor most other faculty professional development activities were ordinarily planned to take advantage of information on faculty performance developed by staff evaluations. Professional development activities tended to be isolated and left up to individual members of the faculty, rather than coordinated with campus long-range program planning.

Professional development is also a voluntary activity (though a few districts, as noted earlier, link such programs to salary schedules). Faculty

are encouraged and supported (where possible) to avail themselves of opportunities to update their skills or knowledge, but some refuse to do so, and many administrators reported a deep sense of frustration at not having the ability to require faculty to improve their skills, not matter how serious the need. 15/

At several of the colleges we visited, informants reported that part-time instructors were sought because of their state-of-the-art knowledge and the skills they bring from recent work experiences, especially in technical areas. At the same time, other informants were concerned that while part-time faculty may be able to provide better instruction in specific technical skills, they were often less prepared to teach the "critical thinking" or "abstract reasoning" skills necessary for advanced level courses or a well rounded education.

While estimates varied, respondents who were asked generally believed that from one-fourth to one-third of the faculty had low competence or were "burned out," and that little could be done in these cases to improve matters. A like number of faculty were judged to be first-rate -- well above average in subject knowledge and teaching skills. The balance of the faculty were generally assumed to be doing a competent but not outstanding job. The latter group of instructors, more than any others, were believed to be the prime candidates for programs of professional development. Respondents often pointed to this "middle group" -- perhaps half of all faculty members -- as the group to concentrate on in order to improve the overall quality of community college teaching. There are no statewide data that address the

issue of faculty quality, and district data are neither comparable across districts, nor, in most cases, complete.

SUMMARY

This chapter has presented the following findings:

- The average age of full-time community college faculty has been increasing, and more than half of these faculty have been employed in the same district for more than 10 years.
- Most part-time and almost half of full-time faculty work at other jobs in addition to their primary teaching assignments. In 1981, three out of five part-time instructors reported holding another full-time job; six percent of the full-time faculty -- almost 1,000 instructors -- also worked elsewhere full-time.
- Most full-time but very few part-time faculty are required to have office hours for students; part-time faculty do not ordinarily participate in campus-wide course and program development or other planning activities.
- Average full-time faculty salaries declined almost 11 percent in real dollars between 1975-76 and 1983-84. Part-time faculty are paid by the hour; their wages average about 38 percent of full-time faculty salaries.
- There is a 37 percent difference (about $10,500) between average salaries paid to full-time faculty in the highest- and lowest-paying districts. Faculty who move between districts must re-negotiate their salaries with their new districts.

- In order to teach a credit class in the community colleges, an instructor must obtain a credential in one or more of 76 different subject areas. Other states do not generally require community college instructors to obtain formal credentials.
- Full-time faculty may become tenured in two years; their job security (layoff notice, dismissal, rehiring) rights are similar to those enjoyed by faculty in K-12 schools. When staff layoffs are necessary, the application of current seniority rules sometimes results in inefficient personnel assignments.
- There is little independent state support for professional development, and college support of these activities has generally declined over the last several years. Professional development activities are rarely coordinated with campus long-range program planning.
- Faculty evaluations have not provided any systematic data on overall staff quality. Interview respondents and panelist generally felt that from two-thirds to three-fourths of the faculty were competent and dedicated, and that many were well above average.

NOTES TO CHAPTER IX

1/ California Community Colleges, Office of the Chancellor, Annual Report on Staffing and Salaries, 1983-84. Sacramento, CA: May 1984.

2/ Chester H. Case, "Impending Faculty Staffing Problems: What the Figures Tell Us." Unpublished paper, n.d.

3/ California Community Colleges, Office of the Chancellor, Report on Faculty Employment. Sacramento, CA: January 1982.

4/ Ibid.

5/ Ibid.

6/ Ibid.

7/ California Community Colleges, Office of the Chancellor, Planning and Future Studies: California Community Colleges. Sacramento, CA: October 1984. Because of differences between the Chancellor's Office and many districts in the definition of "full-time" and "part-time" faculty, the data as originally reported by the districts show a greater decline in the number of full-time staff. The different estimates do not appear to be more than ten percent apart.

8/ California Postsecondary Education Commission (CPEC), Final Annual Report on Faculty and Administrative Salaries in California Public Higher Education 1983-84. Sacramento, CA: 1984.

9/ California Community Colleges, Office of the Chancellor, Annual Report on Staffing and Salaries, 1983-84, op. cit.

10/ California Community Colleges, Office of the Chancellor, Report on Faculty Employment, op. cit.

11/ California Community Colleges, Office of the Chancellor, Annual Report on Staffing and Salaries, 1983-84, op. cit.

12/ Information from the panels and interviews indicates that the probationary period is often shorter than two years. Because contract faculty must be given preliminary notice by March 15 if they are to be laid off for the following fall semester, the probationary period is often a year and a half. In addition, depending on when they are hired (early spring instead of fall), the probationary period can be shorter.

13/ California Community Colleges, Office of the Chancellor, Report on Faculty Employment, op. cit.

14/ The exception is a program of inservice training for vocational instructors and career counselors, created in 1984 by AB 3938 (Farr).

Under this program, $500,000 has been made available in 1984-85, and up to an additional $1.5 million may be sought from the legislature and Governor for 1985-86. See also Chapter VI.

15/ According to state data, professional development is treated as a faculty responsibility by local board or administrative policy in 20 colleges. Thirteen colleges have an agreement worked out as part of their collective bargaining package that staff will participate in such activities. At 19 colleges, there is no formal requirement for professional development. As a practical matter, there are few sanctions that can be imposed on a tenured member of the faculty who has no interest in maintaining or upgrading his or her skills. (California Community Colleges, Office of the Chancellor, Report on Faculty Employment, op. cit.)

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APPENDIX A

STUDY METHODS

This study combined several data collection strategies and included five sets of research activities: 1) interviewing selected community college leaders, academic and government agency experts, and members of the Sacramento policy community; 2) collecting and synthesizing available data and literature on the colleges; 3) convening panels of experts in five key issue areas; 4) conducting an opinion survey among a broad cross-section of knowledgeable community college observers and participants; and 5) visiting 33 of the 106 college campuses across California in order to conduct personal interviews with approximately 400 administrators and faculty members, and collect additional data.

These research activities were mutually supportive. For example, initial contacts and interviews helped us to identify and collect the available literature and data on community colleges, and also guided the selection of colleges for our sample and the development of our fieldwork strategy and procedures. And while our site visits concentrated on interviews with campus respondents, they also uncovered local data and helped us to identify candidates for the panels and respondents for the opinion survey. Each of these activities is described briefly below.

CONTACTS AND INTERVIEWS

Contacts with government, academic, and private experts in state and local agencies, four-year colleges and universities, community colleges,

professional associations and related organizations, and business and industry were employed to help us identify and collect data and information of potential interest to the study. Many of these persons were interviewed at length in order to advance our understanding of community college issues, obtain reputational information on colleges and on exemplary programs or projects, and identify candidates for the panels and respondents for the opinion surveys. A number of these individuals continued to provide helpful guidance throughout the research effort, and several of them served as panelists, opinion survey respondents, and/or reviewers for various chapters of this report. (Panelists and reviewers are listed at the end of this Appendix.)

SECONDARY ANALYSES OF AVAILABLE DATA

Contacts and interviews, and later, the site visits, helped us to identify and collect data and information from a wide variety of sources. Primary state sources included the California Postsecondary Education Commission; the Community College Board of Governors and Office of the Chancellor; the Office of the Legislative Analyst; the Office of the Governor; the Department of Finance; the Employment Development Department; state offices of professional associations, interest groups and unions; Senate and Assembly Offices of Research; and publications of various legislative committees. National sources included the National Center for Education Statistics, the American Association of Junior and Community Colleges, the National Institute of Education, the Bureau of Labor Statistics, and community college systems in several other states. Local sources included research units and other departments within the community college districts and colleges in our

fieldwork sample. Standard library sources -- books, journals, research reports, newspaper articles, directories, etc. -- were also consulted. The bibliography to this report contains a selected listing of the sources used in the study.

The available literature and other data collected were examined in order to ascertain what they could tell us about the status and effectiveness of community colleges in California. Where necessary, data were summarized or reorganized in order to provide a different perspective on the community college system over time, or to facilitate comparisons to community college systems in other states. Some data were subjected to original statistical and/or content analyses in order to supplement information available from published reports.

Finally, some of the data collected facilitated the selection of colleges for our fieldwork sample, and were used to provide the fieldwork staff with background information on the community colleges.

PANEL MEETINGS

In order to gain a clearer understanding of the issues facing the community collgees, five day-long panel meetings were convened to discuss: 1) community college roles and missions, 2) college relationships with business and industry, 3) program effectiveness, 4) personnel, and 5) governance and finance.

Recommendations for knowledgeable and experienced panelists were obtained through contacts and interviews, and from fieldwork site visits. For each

panel, an effort was made to insure a reasonable balance of different viewpoints.

Persons who agreed to serve as panelists were sent a brief description of study purposes, and a panel agenda that included the issues and questions to be discussed. Panelists were also asked to identify and where possible, submit materials and other data that might be of interest to the study. A list of the panelists is provided at the end of this Appendix.

OPINION SURVEY

A brief opinion survey was employed as another means to solicit the views of knowledgeable observers about the strengths and weaknesses of community colleges, and to collect proposals for policies designed to improve the quality and efficiency of college programs. Contacts and interviews, site visits, and panelists helped us to identify respondents for the survey. Special efforts were made to include representatives and officers of the state academic senate, professional associations, faculty unions, and other community college organizations, in order to insure that a wide cross-section of informed opinion would be obtained. Questionnaires were mailed to 327 respondents, and 113 instruments were returned, many of them filled out in great detail. (A copy of the short, eight question instrument is published separately in A Study of California's Community Colleges: Fieldwork and Survey Instruments, WP-107, April 1985.)

FIELDWORK

It was decided early in the course of the study that available data, and the views of panelists and other observers, should be supplemented by

interviews and data collection at a large sample of community colleges. Accordingly, a nine-person field staff visited 33 college campuses in 27 districts across California. The site visits were intended to provide us with more detailed and specific information (especially in areas where available data were relatively weak) about the variation among colleges in student and community context, college programs and services, and faculty characteristics. Additional information on exemplary program and project efforts, and opinions about current problems and ways in which the effectiveness of college programs might be improved, were also solicited.

Information obtained during these site visits provided us with a better understanding of the conditions and factors that influence the quality and character of community college programs and services. It also helped us to validate some hypotheses that emerged from secondary analyses of available data, and to identify strategies used by different colleges to deal with similar problems.

Table A-1 provides an overview of the number and composition of informants interviewed, and the data collection strategies employed during the visits. The fieldwork effort involved site visits of two to four days each, with 11-12 persons interviewed at each of 33 colleges.

In addition to these interviews, relevant documents from each college (e.g., course catalogues, accreditation reports, etc.) were also collected and reviewed. To minimize data reduction problems and facilitate comparisons across sites, a questionnaire was completed by our interview staff for each of the colleges they visited. The following sections describe in more detail the sampling and fieldwork strategy for this effort.

Table A-1

FIELDWORK FACTS

NUMBER OF SITES VISITED: 33 colleges in 27 districts

TOTAL NUMBER OF PERSONS INTERVIEWED: 383

AVERAGE NUMBER OF INTERVIEWS PER SITE: 11-12 people

ROLES OF INTERVIEW RESPONDENTS:

-- college presidents
-- academic senate presidents
-- faculty union representatives
-- administrators
-- faculty members (full- and part-time)
-- other college personnel (e.g., registrars, students, counselors, other classified personnel)
-- chancellors and vice-chancellors
-- local trustees

FIELDWORK STRATEGY:

Interviews and fieldnotes
Document collection and review
Interview summaries
Site case survey questionnaires

The Fieldwork Sample

The sample included 14 urban colleges, 11 suburban colleges, and 8 rural colleges in 27 districts, of which 13 were multi-campus districts. Based on our classification of campus size, our sample consisted of 7 small, 10 medium, and 16 large colleges. The sample included 17 colleges with a relatively high proportion of transfer students and 16 colleges with a low proportion of such students. Table A-2 shows the distribution of the population of colleges compared to our sample, by campus size, metropolitan status and relative proportion of transfer students. The rationale and procedures for this sample are discussed below.

Sample Selection. To meet study objectives, we hoped to identify a large sample of community colleges that would capture the variation in local settings and conditions, while simultaneously exploring the exemplary or special efforts that some colleges were making in particular areas. Thus, while we wanted the sample to be reasonably representative of the population along key dimensions, we also sampled purposively to make sure that we included sites with characteristics reflecting policy issues of interest to the study.

The selection required a two-stage sampling process: 1) creation of a sampling matrix based upon the distribution of colleges along three dimensions, to insure that the sample selected would be sufficiently representative of the population along these dimensions, and 2) purposive selection of colleges within cells of the matrix, based on reputational and

Table A-2

DISTRIBUTION OF SAMPLE AND POPULATION BY METROPOLITAN STATUS, CAMPUS SIZE AND PROPORTION OF TRANSFER STUDENTS

	Campus Size				
High Transfer	Large	Medium	Small		
Rural	2 [3]	2 [7]	2 [7]	= 6 = [17]	
Suburban	4 [14]	1 [5]	0 [2]	= 5 = [21]	17 [52]
Urban	4 [11]	2 [3]	0 [0]	= 6 = [14]	
Low Transfer					
Rural	0 [0]	1 [3]	1 [13]	= 2 = [16]	
Suburban	2 [5]	2 [5]	2 [4]	= 6 = [14]	16 [53]
Urban	4 [10]	2 [9]	2 [4]	= 8 = [23]	
	16 [43]	10 [32]	7 [30]		

n = 33 (sample)
N = 105 [population]

other criteria, to obtain the desired distribution of college characteristics along several other dimensions.

The three criteria selected to stratify the population of community colleges were campus size, relative proportion of students transferring to four-year institutions, and metropolitan status. Although several measures of campus size were considered, the total number of students enrolled in 1982 (both credit and noncredit) was used, with cutpoints determined by the natural breakpoints in the distribution of the population. 1/ We used the total number of transfers in 1982 and 1983 as a measure of transfer activity, using the median for the population to classify colleges as high and low. 2/ Finally, we classified each college on a "metropolitan status" scale (urban, suburban, rural), using a panel of five "expert judges" to rate all 106 colleges. 3/

Five individuals were selected as being sufficiently familiar with the community colleges to make informed judgments as to college metropolitan status. 4/ The judges were asked independently to rate each college in the population according to a five-way classification of metropolitan status, based on the characteristics of the students served and the location of the college. In general, agreement among raters was reasonably high. If three or more judges agreed on a classification, a college's metropolitan status was based on that category, and only 14 of 106 community colleges could not be classified using this rule. The remaining fourteen were classified based on the research staff's knowledge of the area the college served.

Based on project resources and the time frame for the study, we decided that a sample of 30-40 colleges would be appropriate. The classification of colleges by metropolitan status produced a sampling matrix with 18 cells

(2x3x3 -- see Table A-2), with two colleges to be selected from each of the cells so as to insure that the sample was roughly representative of the population along the dimensions selected.

Selecting colleges. After dividing the population of colleges into the 18 cell matrix that embraced the primary sampling dimensions, we eliminated 15 colleges from further consideration as unfeasible sites because they were too isolated given limited project resources. Similar colleges that were more readily accessible still remained as potential candidates for the fieldwork. To obtain a sample from the remaining colleges in the population, colleges were selected on the basis of special interest (e.g., campuses that stood out because the data were counterintuitive -- for instance, increasing transfers and decreasing enrollments) and some variation in the sample according to the following characteristics:

-- Location (North, Central, South);

-- Percentage of full-time faculty at the college;

-- Ethnicity of students (percentage of 1981 freshman who were white);

-- District size (categorized as small = one college district, medium = 2 or 3 college district, large = more than 3 colleges);

-- Degree of emphasis on adult education (non-credit enrollment as a percentage of total enrollments);

-- Percentage of full-time credit students; and

-- Direction of transfer rates (between 1981 and 1983).

Our aim was to maximize the representativeness of the colleges selected so that the sample approximated the distribution of colleges in the population

along these dimensions. In general, the sample selected was reasonably well distributed in comparison to the population.

In addition, reputational information on colleges that had introduced new programs or were making special efforts in particular areas (e.g., retention of low-skilled students, campuses with "academic floors", etc.) was collected, and our sample was checked to insure that it included most of these sites, with the necessary substitutions and adjustments to the sample so that it remained roughly representative of the population according to the dimensions listed above.

Colleges selected were sent a letter requesting their cooperation and participation in the study. Of the 34 colleges we initially selected (some cells of the sampling matrix were empty -- see Table A-2), one was unable to participate in the study.

Fieldwork Strategy

Training sessions were held to familiarize staff with the questions and issues of interest, provide them with background information on the colleges, and develop comparable interview and site procedures. Interim staff meetings were also held to refine procedures, discuss common problems, and share information about the colleges. Several strategies were used to insure that the data collected was both systematic and comparable across sites:

1. Interviewer training: during a da long training session, nine interviewers were provided with materials to familiarize them with the community colleges in general and the colleges in our sample in particular. A fieldwork guide developed by the project director served as a focus of discussion to familiarize staff with the questions and issues of interest to

the study, and insure that they shared a similar conceptualization of the issues. Similarly, a memo provided interviewers with the basic interview "protocol" (e.g., who to speak with, how to conduct the interview, length of the interview, etc.) and site procedures (arranging the visit, documents to collect, etc.)

2. Interim staff meetings: Staff meetings during the fieldwork period helped to refine study questions and fieldwork procedures. Discussions about the sites visited helped the fieldwork staff to develop a similar perspective and seek comparable information.

3. Reliability exercises: Two interviewers were assigned to one site during the first round of visits. During the interim staff meetings a number of exercises were conducted to determine whether both members of a team would draw similar conclusions about a site they had visited together. For example, interviewers were asked to summarize their interviews using a form organized around the topics of the fieldwork guide. Summaries of the same interview conducted by both members of a team were compared in order to determine whether interviewers heard and recorded comparable information.

Two strategies were employed to help us collect data for later analysis:

1. Interview summaries: As previously described, interviewers were asked to complete a summary for each of the interviews they conducted, organized around the main issues and themes of the fieldwork guide. These summaries were primarily for the <u>interviewers</u>; a tool for helping them to organize their fieldnotes.

2. Site questionnaire: A questionnaire based on the major topic areas covered by the fieldwork guide was developed with the help of information provided by interviewers during interim staff meetings. (A copy of the questionnaire is published separately in A Study of California's Community Colleges: Fieldwork and Survey Instruments, WP-107, April 1985.) Interviewers were asked to complete a draft of this questionnaire, and their criticisms and suggestions were used to revise the instrument. Questions for which most interviewers had little information were dropped and areas that had been missed were added. This questionnaire, rather than interview fieldnotes, served as the basis for subsequent analysis.

We asked some of the panelists, as well as others, to review drafts of chapters of this report and to assess the validity of the findings in light of the evidence presented. The following reviewers each critiqued one or more draft chapters:

Fredrick Balderston
Graduate School of Business
University of California, Berkeley

Lois Callahan
College of San Mateo

Chester Case
Los Medanos College

Walter A. Garms
Graduate School of Education
University of California, Berkeley

Clive Grafton
School of Education
University of Southern California

William Pickens
California Postsecondary Education Commission

Nancy Renkiewicz
Sacramento City College

Joan Sallee
California Postsecondary Education Commission

Daniel Wall
County Supervisors Association of California

Stephen S. Weiner
Mills College

Wellford Wilms
School of Education
University of California at Los Angeles

PANELISTS

Five day-long panels were convened to discuss issues pertaining to:

1. Community college roles and missions
2. College relationships with business and industry
3. Program effectiveness
4. Personnel
5. Governance and finance

Panelists who attended these meetings are listed below.

Debra L. Banks	President, Academic Senate, Mission College
Leon Baradat	Political Science Faculty, MiraCosta Community College
Ernest Berg	Specialist, Program Evaluation and Approval Unit, Chancellor's Office, California Community Colleges
Marjorie K. Blaha	President, Solano Community College
Douglas Burris	Vice Chancellor of Educational Services, Los Rios Community College District
Lois Callahan	President, College of San Mateo
Chester H. Case	Instructor, Los Medanos College, and lecturer in higher education, University of California, Berkeley*

John W. Casey	Superintendent/President, Pasadena City College
William Craig	President, Monterey Institute of International Studies
Carmen Decker	Faculty, Cypress College; President, Academic Senate, California Community Colleges
Carol Enos	Trustee, Rancho Santiago Community College District, Past President, Trustees Association
Ronn Farland	Administrator for Special Projects, Office of the Chancellor, California Community Colleges
Thomas W. Fryer, Jr.	Chancellor, Foothill-De Anza Community College District
William Furry	Staff, Assembly Ways and Means Committee
Robert Gabriner	President, Community College Council, California Federation of Teachers
Terry Gildea	Manager, Technical Training, Hewlett Packard Company
Glenn Gooder	Consultant, Office of the Chancellor, California Community Colleges
Daniel Grady	Trustee, San Diego Community College District, Past President, Trustees Association
Clive Grafton	Associate Dean, School of Education, University of Southern California
Robert Hall	Director of Training -- Plumbing, Pipefitting, Refrigeration, Heating and Airconditioning Joint Apprenticeship and Training Committee of Santa Clara and San Benito Counties
John P. Hernandez	Vice Chancellor, Kern Community College District
George D. Kieffer	President, Board of Governors, California Community Colleges
Sarann Kruse	Administrator, Operations Education/Government Liaison, Northrup Aircraft

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*Now President, Los Medanos College

Eileen Lewis	Faculty, Canada College; Member, Executive Committee of the Academic Senate, California Community Colleges
Kathy Lusk	Dean of Occupational Education, Santa Ana College
Peter R. MacDougall	Superintendent/President, Santa Barbara City College
Jenny Magid	Corporate Contributions Coordinator, Tandem Computers Incorporated
Roberta Mason	President, California Community College Trustees
Janet McAfee	Assistant to the President, Diablo Valley College
John McFarland	Faculty, Sierra College
David Mertes	Chancellor, Los Rios Community College District
Larry Miller	Instructor and Executive Head, Respiratory Therapy, Foothill College; Chairman, Vocational Education Committee, Faculty Association of California Community Colleges
John C. Petersen	Superintendent/President, Cabrillo College
William Pickens	Staff, California Postsecondary Education Commission
Robert Pietrowski	Higher Education Specialist, California Teachers Association
Joe Richey	Employment Manager, Pacific Telephone Company, Los Angeles
Joan Sallee	Staff, California Postsecondary Education Commission
Edward Simonsen	Community and Junior College Consultant
Sheila Swanson	Director, California Community College Student Lobby
Robert L. Swensen	Executive Director, Accrediting Commission for Community and Junior Colleges
Max R. Tadlock	Superintendent/President, Monterey Peninsula College
Dale Tillery	Professor Emeritus, University of California at Berkeley
Tom Van Groningen	Chancellor/Superintendent, Yosemite Community College District

Daniel Wall	Staff, Senate Finance Committee*
Kevin Woolfork	Staff, California Postsecondary Education Commission
Gene Wright	Administrative Dean, College Services, Cabrillo College

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*Now staff, County Supervisors Association of California

NOTES TO APPENDIX A

1/ This measure was thought to be the best available indicator of possible differences in the degree of "administrative burden" imposed by the number of students enrolled. Examining the distribution of colleges in the population, natural breakpoints were selected: less than or equal to 7,597 students was considered small, greater than 7,597 and less than 14,839 was considered medium, and equal to or greater than 14,839 was considered a large college.

2/ Our objective was to insure variation in the sample along two dimensions of critical importance to the study, given their emphasis in the community colleges: transfer education and vocational education. There are no state data that could be used for sampling purposes on the relative size of vocational programs; statistics on numbers of transfers were used to broadly characterize colleges as "high transfer" and "low transfer."

3/ Although a measure of the metropolitan status of community college districts was available from the Chancellor's Office, our experience suggested that variation within multi-campus districts might be substantial. In addition, community colleges serve diverse populations often spread across large geographic areas. Thus, they do not fall neatly into census tracts or county boundaries, where information on population density and other indicators of metropolitan status would be readily available. Informants at the state-level indicated that no measure of the metropolitan status of each college was available from past studies or from other data sources. Given these constraints, the use of expert judges seemed the most appropriate alternative.

4/ The judges were from the Accrediting Commission for Community and Junior Colleges, the legislative staff, the Department of Finance, the Office of the Chancellor, and the California Association of Community Colleges.

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